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STUDIES IN INDIAN ECONOMICS

EDITED BY

C. N. VAKIL

UNIVERSITY PROFESSOR OF ECONOMICS, BOMBAY

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A series of volumes dealing with the Economic History and problems of Modern India

Edited by

C. N. VAKIL

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FUTURES TRADING AND FUTURES MARKETS IN COTTON

WITH SPECIAL REFERENCE TO INDIA

By

H. L. DHOLAKIA, Ph.D.,

SOMETIME PROFESSOR OF COTTON INDUSTRY,
H. L. COLLEGE OF COMMERCE, AHMEDABAD.

WITH A FOREWORD BY

SIR PURSHOTAMDAS THAKURDAS, Kt., C.I.E., M.B.E.

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In memory of
My Brother
N. L. DHOLAKIA

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*Bombay,
30th April, 1942.*

H. L. Dholakia

FOREWORD

The study presented by Dr. H. L. Dholakia in his thesis "Futures Trading and Markets in Cotton" is one of the few of the systematic studies of live subjects, undertaken in the dispassionate atmosphere of Indian Universities by advanced research students. Before the eighteenth century and the advent of the industrial revolution, marketing of agricultural produce did not present the problems which it presents today. Marketing of these products for a country which caters for world markets, as in the case of India during the last century, has created many problems. The most important of these is price insurance for the merchant who helps in marketing the produce. In a world in which *laissez faire* more or less dominated, this was solved, by the gradual evolution of what is known as forward trading. During the last 75 years, the technique of forward trading has been greatly improved to make it safe for the grower and the middleman by reducing risks of fluctuations in prices during the course of carrying cotton to the consumer's door. The technique of forward trading, as far as the Bombay cotton market is concerned, has been so well developed in the last few years that experts from America and other foreign countries have expressed their appreciation of the skill used in this development. That the University School of Economics in Bombay should have trained one of its scholars to undertake an intensive study of this subject, is a matter of compliment to Prof. C. N. Vakil, under whose guidance the work was done. Whilst it may not be claimed that the treatise deals with the question in a completely exhaustive manner, it will be recognised that every effort has been made by the author to marshal facts and figures available to him in an impartial spirit. There are several points on which differences of opinion exist in the trade itself on some of the subjects dealt with in the treatise, but the author has tried to present both the sides in an able manner. I have no doubt that this volume will supply a long felt want in the cotton trade, and enable all, including the public at

large, to follow intelligently the various questions referred to in the volume.

I expect that before long similar studies will be undertaken in other important raw materials of India which are dealt with on the forward market, such as jute, wheat etc., and if this is undertaken at important trading centres of each commodity, the process of bringing about closer association between academic workers and practical businessmen, so that they may work in a common direction, would be hastened.

At the moment that this foreword is being written, the marketing system which has prevailed for over three-fourths of a century is undergoing rapid changes owing to the exigencies of war. The loss of foreign markets and the difficulties of transport, both internal and to such other foreign countries as are still accessible, have rendered forward trading difficult. Even before the outbreak of the present war and especially since the World Depression of 1930-31 import restrictions, quotas, exchange regulations and bilateral and multilateral trade agreements had begun to change the course of the marketing system that was governed by laissez faire. The ideas of planned economy and crop restrictions, import restrictions, etc., had found favour even in Democratic countries. Forward trading was the best that the laissez faire system could produce and it was its last word to promote stability of prices thus facilitating marketing of agricultural produce. With laissez faire discredited, almost every economic activity was planned in the Totalitarian countries. As for the future, the marketing system will depend on the structure of society and if, as seems not improbable, even the Democratic countries adopt the principle of planned economy for reconstruction after the war is over, the marketing system that has prevailed up to now may be greatly modified. This, however, is a peep into the future.

In the meantime if efforts can be made in India to ascertain the cost of production of the main commodities, and the average net return to the cultivator for them over a series of years, it will be a great help to the vast mass of agriculturists concerned and a valuable source of guidance to the relative local Governments. I hope that the

various Universities in India which train students for advanced research in Economics will make efforts to handle this question of contemporary, almost day to day, importance to our agricultural economy. Dr. Dholakia's enterprise in undertaking a study of this nature deserves high appreciation by all interested in the study of the economic structure of the country.

"Suneeta", Ridge Road,

Bombay, 6.

30th April 1942.

Purshotamdas Thakurdas.

EDITOR'S PREFACE

The growth of futures markets in various commodities is an important development in modern business methods. The cotton futures market is the most important of such markets in our country. Though a large number of persons are interested in the work of these markets, we have no authoritative source of information regarding their actual working; nor has there yet been any attempt at giving a detailed explanation of their economic significance. The part such markets play in the formation of prices, in the allocation and distribution of risk and in the evening out of seasonal and other fluctuations is of the highest theoretical and practical interest.

The present volume is the first systematic attempt to fill this gap. After giving a brief history of the futures trading in cotton, the author proceeds to analyse the nature of a futures contract bringing out its full implications. The organisation of a futures market in cotton is discussed with particular reference to the East India Cotton Association. The main issues regarding the problem of the regulation of these markets have been explained and concrete suggestions are made to indicate the lines of reform. The author has also made useful comparisons with similar markets in other countries.

Though the information regarding cotton futures markets in other countries is available, the only way to obtain the data regarding the Indian market was to obtain familiarity with the actual working of the market by attending the ring and by being in contact with those actually engaged in the market. The difficulties of obtaining the necessary facilities for such a purpose on the part of an academic worker are obvious. I have referred in some of the former volumes in this series to the need for closer co-operation between businessmen and academic workers in the interests of research and spread of knowledge. I must record with grateful thanks the ungrudging help which we received from Mr. Pranlal Devkaran Nanji who

extended to the author the privileges of a member of his staff in order that he may obtain the necessary insight into the working of the market. The East India Cotton Association and the Karachi Cotton Association as well as several prominent members of the trade were good enough to help the author in obtaining information and in discussing difficult points.

We are grateful to Sir Purshotamdas Thakurdas for his kindness in writing a Foreword to this volume; it was in the fitness of things that he should do so; the present status and organisation of the Bombay Cotton Market are his creation. When the thesis was referred to Sir Purshotamdas by the University of Bombay he took a keen personal interest in it; the author and I had opportunities to discuss points arising out of the book with Sir Purshotamdas for several hours and his sympathetic criticism has gone a long way to improve the quality of the book. It may be added, however, that the author alone is responsible for the opinions expressed in the book.

*School of Economics and Sociology,
University of Bombay,
30th April, 1942.*

C. N. VAKIL.

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PART I

**STRUCTURE OF FUTURES TRADING AND
MARKETS.**

CHAPTER I

INTRODUCTION

THERE are probably few subjects upon which more nonsense is talked or more ignorance is displayed than 'futures trading'. There are, perhaps, very few public and private institutions which, generally speaking, attract as much attention and occupy as much space in the public imagination as the cotton futures markets. It is a commonplace view in this connection that risk is universal. Speculation is inevitable. Speculative risk may be transferred by one group to another, but it cannot be obliterated. In fact, it is an all pervading factor in the marketing of an agricultural staple commodity from the field to the factory; from the producer to the consumer. The technical apparatus of marketing has become so intricate that scarcely anyone but an operator or a professional dealer has any opportunity of making himself familiar with it.

IMPORTANCE OF THE SUBJECT

Markets may be distinguished as farmers' local markets, central markets, spinners' markets and futures markets. An understanding of cotton marketing involves information of all these various types of markets and a knowledge of the factors affecting prices which in turn tend to determine its consumption as well as production. It is a matter of common experience that out of these markets, the futures markets, by virtue of their organisation and operation, stand at the top of the modern marketing system. It is a futures market that largely determines the prices in all the other markets. It is in an organised market that prices reflect the consensus of trade opinion since the composite judgment of all the operators is being constantly recorded in the current or ruling price of the commodity.

A futures market offers an easy and rapid method for the expression of the mass opinions of both buyers and sellers of the commodity. It furnishes another great advantage in that the price is determined during every

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hour of the trading day against which both producer and consumer can check any offers they receive. Socially viewed, an organised produce market is a remarkable institutional accomplishment in an economic order in which price is of dominant significance. The futures market has become a beautifully balanced machine which reflects the world's conditions of supply and demand for a particular staple. One of the highest forms of mechanical and technical efficiency in commercial dealings today is therefore found in the commodity futures markets. Moreover, the futures markets and their activities have not only a distinct place in the industrial structure of the present day, but they are also recognised as lawful bodies.¹

SPECIAL SIGNIFICANCE OF THE STUDY TO INDIA

The value of 'futures markets' or methods of organised marketing was discovered early in modern commercial history. These markets or methods are apparently demonstrating their usefulness for an increasing range of commodities. It was not until the 19th century, however, that the commodity 'exchange' reached its full development in the world. Industrial countries like England, Germany, the U.S.A., etc., began to evince some interest in the development of the 'exchange' marketing system and tried to render its mechanism as perfect as possible. But in India, conditions were different. The futures markets were in the beginning condemned as speculative agencies. They were regarded as devices of middlemen to resell products repeatedly at profit to themselves. For a long time past, the futures markets were supposed to be nothing short of gamblers' dens. Even today, at times, it is not uncommon to hear that a futures market, say, for cotton, is the cause of low prices or of high prices.² This confusion of ideas is not unnatural. As a matter of fact, it may be stated that in our country all futures markets, either in commodities or securities, are more or less covered with secrecy. This may be due to the fact that those who enjoy the monopoly of dealing in a restricted field believe it to be in their own interest to make a mystery of their craft or

¹cf. Trade Associations: Their Economic Significance and Legal Status: National Industrial Conference Board; New York, 1925, p.100.

²Personal interviews.

profession. But the chief reason that strikes us is that little has been done in India by the State, or by the trade to tear aside this veil of mystery about future's trading in general and organised produce markets in particular. In view of this lamentable state of affairs, and in comparison with the highly developed and efficiently organised marketing system prevailing abroad, it seems that a great deal remains to be done in our country in this direction.

Exchanges for agricultural produce can be compared to the nerve centre of the price system which is the foundation of the prevailing economic order. Its strength or weakness is bound to be forcefully reflected in our present day economic system. Even the marketing surveys conducted by the Marketing Department of the Government of India and of the Provincial Governments do not devote more than a page or two to futures trading. In the present circumstances, it is thus of vital importance to make a special study of the futures markets in India.

This work is an attempt to meet this long felt need of a systematic study on 'futures trading and futures markets', for a principal agricultural commodity, viz., cotton with special reference to our conditions. Raw cotton in its various stages directly affects the fortunes of millions of people in India, and indirectly the entire Indian Economy. Further, there is no agricultural commodity in India for which the futures markets are as extensively used as in the case of cotton. Though its price is affected by world factors, they enter India only through the filter of the futures market. This filter, no doubt, is a complicated mechanism. But its control and component parts are fit subjects of intensive economic study. We have examined the nature and efficiency of this filter with a view to consider its economic significance.

EXISTING LITERATURE ON THE SUBJECT.

A research worker in this field in India is however handicapped chiefly by the fact that there is not only scanty literature on the subject, but some of the important works on the theory and practice of futures trading are also not available in our country.¹ Moreover, hardly do

¹e.g. H. C. Emery: Speculation on the Stock and Produce Exchanges of the U.S.A., 1896; Ellison Thomas: The Cotton Trade of Great Britain, 1884, etc.

FUTURES TRADING AND MARKETS IN COTTON

we come across a single commendable volume which deals with the Indian Cotton Futures markets. The only remarkable work that can be said to deal with the marketing of Indian cotton is that of Prof. M. L. Dantwala who in his book, 'The marketing of raw cotton in India,' published in 1937, devotes a few chapters to the study of futures trading. But the scope of his work does not allow him to do that justice which the subject of futures trading and futures markets demands. The main object of the author is the marketing of raw cotton from the field to the exchange, and not the study of futures trading and futures markets. In fact, the work primarily deals with spot cotton and its physical handling.

All that can be referred to as 'literature' on the subject is the daily news-papers, scattered articles and speeches by notable people connected with the trade, and brochures, pamphlets, etc., published occasionally by different institutions or concerns. Considerable difficulty has been felt in making use of these materials because of the want of uniformity as well as reliability in some cases. However, an attempt has been made below to study the subject of the cotton futures trading and futures markets on information gleaned through scattered sources, and verified by personal interviews and discussions with leading cotton merchants in India and also from replies to the questionnaire issued for the purpose.

SCOPE OF THIS WORK

The present work is concerned with an analytical and comparative study of the world's cotton futures markets with special reference to conditions in India. In other words, the purpose of this study is to critically examine the existing cotton futures trading system and cotton futures markets in India in the light of the experience gained by the overseas sister markets.

We have divided the discussion of the subject matter of this work into two parts, viz., (1) Structure and (2) Services of Futures Trading and Futures Markets. Part I deals with the organisation and mechanism of the cotton futures trading and cotton futures markets in a general way. The various issues connected with the 'futures' cannot, however, be viewed in true perspective unless we are conversant with their history. Therefore a historical

review of both futures trading and futures exchanges precedes the discussion of their modern problems. The second chapter thus traces the genesis of 'futures' followed by the analysis of 'futures' in chapter third. The fourth chapter deals with the structure and principles of organisation of the futures markets illustrated by a concrete description of the world's cotton exchanges in the following chapter. At the end of the fifth chapter we have prepared a comparative statement showing the principal features of cotton futures markets of the world. In the sixth chapter the clearing of 'futures' has been explained. This has involved the study of methods and machinery of a clearing organisation.

Part II is devoted to the discussion of the economic services of cotton futures trading and futures markets; and their regulation. The importance of these services can never be over-estimated. A futures exchange offers so many services to the person who handles the commodity that it has become almost indispensable in the orderly marketing of many of the world's staples of commerce. The first and foremost service rendered by a futures market to the cotton world is that of hedging. Hence, this part opens with the chapter on 'Principles and practice of hedging'. It may be mentioned that the justification of the existence and maintenance of futures exchanges lies in the facilities afforded by them for hedging. This is followed by a chapter examining the special problems of hedge contracts in India, particularly, in the Bombay market. The next chapter is devoted to speculation in commodities upon which the theory of hedging mainly rests. In chapter ten we have studied the parity and 'badla' or straddle operations which have become most popular with the cotton dealers upon exchanges. Operators now-a-days do badla business between any two markets of the world on the basis of parity calculations and keep the prices in different markets constantly adjusted to each other. Chapter eleven deals with cotton prices. Here we have examined the factors affecting the cotton prices, and the ability or otherwise of the trade to successfully forecast the prices in advance. Obviously, the lack of such knowledge has often led to the absurdity that a large crop has been sold at a lower total price. In Chapter XII, the

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option business or what is known in India as 'Teji-mandi' business is discussed in its various aspects including its effects upon prices. The legal nature of Teji-mandi transactions has also been examined.

The problems of control and regulation of futures trading as well as futures markets have been discussed in the thirteenth chapter. It is devoted to the important issues pending before the Indian markets, such as, the questions of 'unitary control', 'the system of panels', etc., and gives the existing systems of regulation of futures trading in other countries in the light of which the defects of our system may be realised and improved upon.

The last chapter to this part brings out all the principal economic services rendered by a cotton futures market to agriculture, trade and industry. It sets forth the summary and main conclusions of our study. It also indicates the economic importance and the place of a futures market in distribution, especially in the system of marketing an agricultural produce such as cotton, wheat, rice, etc. We have attempted in an Appendix the general study of the problems connected with the war. The study is confined to the first two years of the war and concerns chiefly with the broad issues such as prices, clearing, Teji-mandi, etc. Another Appendix reproduces the questionnaire issued by us in the course of our study.

It will not be considered out of place to say that opinions on these vital matters are bound to differ. Such of them as are offered here are not in a spirit of unflinching dogmatism or unshakable faith, but only as logical conclusions to the entire description and discussion about the nature and structure of the cotton exchanges of India.

CHAPTER II

GENESIS OF FUTURES TRADING IN COTTON

IT has been said that exact dates for the beginning of trading in cotton contracts for future delivery are not definitely known. However, it is certain that trading existed in effect before definite rules and regulations were adopted for the markets which originated this method of buying and selling. After trading had developed, it was found necessary to form bye-laws governing these transactions and such bye-laws were changed from time to time as the operations of the markets made such changes necessary.

1. COTTON TRADE TILL THE FIRST HALF OF THE NINETEENTH CENTURY.

Early Trading: The fact that India has been the home of cotton and the cotton trade from the earliest times has been admitted on all hands. It was only during the eighteenth century that other countries took to cotton cultivation on a sufficiently large scale. Among them the United States of America and Egypt were the most important. Prior to and during the eighteenth century the manufacture of cotton goods was carried on by spinners and weavers in their homes. Raw cotton was obtained from neighbouring markets. The system of marketing was simple. Moreover, prior to 1818 there were no telegraph or cable lines and no railroads and steamboats regularly crossed the oceans. In short, means of communication measured by modern standards, were poor. In consequence, trading in cotton as practised today was not possible. In the early days of the nineteenth century marketing problems were thus strictly local and the marketing of cotton was a comparatively simple procedure.

Industrial Revolution: Then came the Industrial Revolution and the whole phenomena of cotton trade was totally changed in all its aspects. The Industrial Revolution over-powered the barriers of nature. Inventions both in machinery and transport stimulated the demand for cot-

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ton. This revolutionary era was characterised by an enormous increase in the cotton trade.¹ A change in the nature, volume and location of the cotton industry took place. It is estimated that in little more than twenty years almost all the great inventions were made and "the cotton plant of the Orient" was regarded as historically responsible for a major share in the Industrial Revolution.

Growth of Foreign Trade: As a result of the Industrial Revolution imports of cotton into England increased rapidly. India and the U.S.A. were the principal sources of supply. In early days, as the total quantity of cotton imports was comparatively small there was obviously not enough business for any broker to specialise in cotton exclusively. At the commencement of the last century England's import of cotton from India was about 15,000 bales of 400 lbs. each. The following figures² show what remarkable fluctuations took place in the imports during the first half of the nineteenth century:

Years	Bales
1810	19,000
1818	2,47,000
1821	20,000
1841	2,78,000
1848	49,000

This phenomenal increase is attributed to the rapid development of progressive means of transport. In 1819 the first steamboat crossed the Atlantic Ocean. Since then during the next half of the century, means of communication gradually improved. A steam railway line was put into operation in 1829. The Liverpool-Manchester Railway was opened in 1830. This facilitated the growth of the Liverpool market. The unusual demand for raw cotton brought about a remarkable change in the system of marketing in both the producing and consuming countries. The Industrial Revolution gave rise to new economic problems. In fact, with every development in transport and communication services, important milestones were laid in the process of marketing and drastic changes in trade methods took place.

¹A. B. Scherer: "Cotton as a World Power": 1916, p.52.

²A. S. Pearse: Indian Cotton: 1914: p.53.

'To Arrive' Contracts: With the increase in demand cotton production was improved and expanded in the producing countries. To facilitate import a system of sale by description had to be evolved. This was done in the early years of the nineteenth century. Formerly supplies were usually described by the name of the 'country of origin'. Improvements in cultivation and handling contributed greatly to the development of a system of grading. The system of grading was in use for sugar and coffee. A similar system was also in use for Sea Island cotton in 1805.¹ In the case of American cotton it was all from practically one source and handled uniformly by the saw-gin. This made it possible for the sellers to sort out the cotton into even running lots. These lots were selected on the ground of their being of uniform grade. Somewhere about 1810 the custom of offering cotton for sale by sample was introduced. However, transportation was still poor and it took several weeks for cotton to reach Lancashire during which time changes in price would probably take place. But risk was comparatively negligible, because there were no communication services or 'liners' and the goods as well as news travelled together. Under these circumstances, all the advantages of sampling were not fully realisable. In 1840, the Cunard Line—a regular mail service—was established. This made it possible to send samples and advices in advance. Consequently, a drastic change in the technique of the cotton trade became necessary. There arose the discrepancy between the speed of the transport service and that of the regular mail service. As a result, the new system of trading known as cotton 'to arrive' quickly developed. By this system, merchants were advised of cotton coming by certain ships and while it was at sea, samples could be offered at Liverpool or any other buying market 'to arrive' about the time the ship could be expected. An operator might buy cotton 'to arrive' on the basis of samples and wait for a rise in price and then sell it at a profit. This would occur a number of times.² Thus, the practice of buying and selling the

¹J. A. Todd: *The Cotton World*: 1927, p.61.

²It should however be pointed out that facilities to speculate in the modern sense of the term i.e. facilities for selling short were not yet developed.

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supplies while afloat was of outstanding importance in the development of futures trading in cotton.

The Liverpool Cotton Brokers' Association: Another important change in the process of marketing raw cotton was brought about by the appearance of the middleman between the consuming centre and the producing area. Since the quantity of raw material demanded and consumed by factories was considerable, it was the business of certain men to buy and furnish the spinner with the required raw material. Gradually a number of brokers began to deal increasingly in cotton due to the growing volume of trade. The increased share which Liverpool could secure in the import trade meant more business for brokers who were inclined to specialise in cotton alone. At this time attempts were made to organise the Liverpool market and put it on a sound basis. Brokers began to issue periodical reports giving statistics relating to imports, sales, etc. They assembled at one place to collect these statistical data. The reports were published in the form of Trade Circulars.¹ But these reports were made on individual initiative and hence, they multiplied in numbers and varied in figures. To avoid multiplication and variation, 'a General Circular' was published in 1832. This Circular contained all the important statistics pertaining to the cotton trade. Figures were given for imports, sales, stocks, and current prices of all foreign cottons along with those for colonial produce. The idea of a cotton trade association sprang out of these periodical meetings and it was started in 1841 under the style of the Cotton Brokers' Association, Liverpool.

2. THE AMERICAN CIVIL WAR AND AFTER

Trading Prior to the Civil War: From what has been narrated above, it must have been clear that vast developments in the cotton trade, particularly with the growth of the cotton industry in England, took place. Producing countries developed their resources and produced more and more with the idea of meeting the ever-increasing requirements of industrial countries. Besides, raw

¹Many interesting and typical examples of this practice are cited by Dr. J. E. Boyle in his book "Cotton and the New Orleans Cotton Exchange." 1934.

cotton producing countries like the U.S.A. and India began to build up their own textile industry. Their developments added to the demand for raw cotton. Naturally, therefore, local markets had to enlarge and widen their spheres of activity. It was at this stage that the real trouble in marketing of cotton arose. Economic problems began to make their appearance in the form of the complexity of distribution. As a result, central markets were established for storage and sale of agricultural staples. Thus, the process of marketing cotton evolved from primary to secondary and from secondary to a central market, like that of Bombay or New Orleans. Stated otherwise, from the early days of selling cotton at the village markets, the farmer began to send his produce to the nearest town market, and from this local or secondary market, cotton was sold to the central market. These central markets were usually situated at ports. For instance in India, the Cotton Market was situated at Bombay. The idea was to facilitate the export of cotton. Moreover, the timely invention of the telegraph in 1844 made inroads into the old system of marketing. Then came the Crimean War and the demand for cotton increased. It will be appropriate here to observe that the trading in cotton before the American Civil War, either in Bombay or New Orleans was in the form of the old-fashioned commission business, similar to the business of handling grain and other agricultural products. At that time most of the cotton was sold through commission agents, who resided in these ports and who were in most instances the intermediaries between the producers and the consumers. Market conditions were still not satisfactory for want of modern means of communication such as a cable service. Broadly speaking about the time of the Civil War, communications between the different continents were generally through the medium of sailing vessels and a few steamboats which carried the mails. In fact, there was no definite or even general knowledge in the cotton producing areas of the prices ruling in an importing centre like Liverpool; save, when an order was received to buy and ship. Larger issues affecting prices such as the political situation in Europe, war or rumours of wars, only filtered through weeks and months after they occurred. Further, there was no central agency from which quotations might

be derived and distributed. In other words, though the industrial countries depended mostly on producing countries, there were no organised cotton markets nor dealings in futures.

The Cotton Famine: In 1862 there started the Civil War in America. It adversely affected the industrial countries and meant a cotton famine in general and for Lancashire in particular. The U.S.A. during 1856-61 supplied practically half the stocks annually exchanged in these years in the cotton markets of the world. The war entirely dislocated the American cotton trade. The consequences of the war may be best judged from the following table which shows the reduction in the cotton crop.¹

U.S. Cotton Crop (in million bales of 500 lbs. each)

1861-62	1.8
. . 1862-63	1.5
1863-64	.5
1864-65	.3

Widespread Speculation: It was on account of this that Indian cotton was largely in demand. Prices began to advance. Still the demand from Liverpool for Indian cotton was very strong. This contributed to the high prices prevailing at that time. In the year 1863 the enormous demand and the high prices paid for cotton had the effect of bringing to the Bombay market every available bale in India. The average price of Surat cotton which prior to 1863 was sold in the Liverpool market at 3 to 5d. per lb. began to fetch as much as 20 to 40d. Similarly, the average price of Middling at Liverpool which was 7 19/20d. per lb.^{*} for the years 1856-61 began to rise and soared up to 20½d. This shows that prices rose very high, and thus stimulated the speculative instinct of traders. Speculation increased and mounted rapidly to an enormous proportion by 1863.²

¹Vakil and Muranjan: Currency and Prices in India, 1926, p.194.

^{*}A contemporary of this period remarked 'Everyone in Bombay appeared to have become wild with the spirit of speculation.'

Supply was far less than during the preceding years, but the rapidity of turnover more than offset the shortage of supply. Similarly, Middling cotton in New York was sold for 1.00 dollars a lb. This might be attributed partly to the fluctuations in the value of currency and partly to the fact that no regular shipments to New York were made during the greater part of the war. The fierce demand and uncertain as well as inadequate supply gave opportunity for vast and sudden profits. The same thing happened in Liverpool where some speculators bought cotton 'to arrive' even six months ahead at prices five times greater than its normal value.¹

The Installation of Trans-Atlantic Cable: No sooner did the American Civil War terminate than came an important development in the means of communication. In 1866 the Atlantic Cable was successfully laid. It brought about a revolution in the technique of trading in cotton. Instead of selling from samples 'to arrive' cotton was now offered on a specified grade in the consuming markets to sail in the near future, say, one or two months later. This rapid means of communication enabled world cotton markets to receive immediate information as to prices and the movements of actual cotton both in the fields and in transit. It also facilitated the element of speculation to a great extent in the following years. But the character of speculation was altogether changed now. Prior to the war, speculation was, if at all it can be called speculation, in the spot or ready cotton; whereas after the war, the term speculation achieved its modern significance and was applied in its real sense to the sale and purchase of cotton contracts which were meant to be offset at the earliest opportunity. Speculative operations developed on the 'short' side of the market at this time and there was a great demand for short positions of a contract after the close of the war.

The New York Board of Cotton Brokers: The Trans-Atlantic cable facilitated the demand of selling and buying cotton on contracts for future delivery. During the following years this system developed to a considerable extent and it is likely that futures trading in New York first

¹A. B. Cox: Evolution of cotton marketing, 1925, p.16.

companies, in this case, had a total Ordinary, Preference and Debenture capital of £253,553,000, of which about 8 per cent was in Debentures and mortgages, 26 per cent in Preference, and 66 per cent in Ordinary. That may be taken as a fair example of capitalization in industrial concerns as a whole, though a greater share of Debentures is appropriate to some enterprises, and nothing but Ordinary shares to others.

The distribution of capital ownership is a matter of prime importance, not only to company organizers and directors, stockbrokers and capital issuing-houses, but to "higher quarters." A larger part of the financing of British industry is effected through the sale of company shares to the general public to-day than before the Great War. Taking direct offers to the public alone, home industrial companies took nearly 50 per cent of a total of £469 millions of new capital issued in the London market in the three years 1934 to 1936. For the three pre-war years, 1911 to 1913, the corresponding proportion was only 17 per cent of a total of £599 millions. (Issues made by the British Government are excluded from the aggregate in both instances.) Businesses which in earlier times would have remained in "family" hands, or have obtained their finance locally, nowadays seek the largesse of the public investor. If the latter were wealthy, well-organized and well-informed, he would need no protection except the law of contract. Actually, as we have seen, he is usually a small holder, and to presume complete knowledge on his part of the quality of the wares he is buying, or the nature of the risks to which he is exposed, may be ostrich-like optimism. The state may ultimately be required to expend considerable thought upon the question whether *laissez-faire*, which has been more or less discredited in fields like labour, production, and tariff-making, should not be modified also in that part of the domain of investment which is concerned with the provision of capital for industry.

CHAPTER II

DEBENTURES

LEGAL distinction between Debentures and shares—Can it be sustained on first principles?—Relation between Debentures and “fixed” capital—Examples from British industry—Market price of Debentures—Influence of fluctuations in trading activity—“Money risk” and “industrial risk”—Characteristics of good and bad Debentures respectively—Foreclosure rights of Debenture holders—Their limited utility—Earning power the only sound security for Debentures.

A PRELIMINARY inquiry into the ownership of British industrial capital having thrown some light on the question “Who is the Investor?” the road is clear for a critical analysis of the merits of various investments. Every textbook on finance distinguishes “fixed-interest” securities from “ordinary” or “equity” securities, and further sub-divides the former group into Debentures and Preference shares, of various classes. It is proposed to consider, in succeeding pages, the nature of the investment “appeal” of industrial Debentures, and Preference and Ordinary shares, in turn.

The difference in genus between “fixed-interest” and “equity” securities is readily apprehended. The first entitle the holder to his pound of flesh, when the meat is there. The second make the world his oyster—in theory, at least. The distinction between the Debenture and Preference sub-groups, however, is much more subtle. Most writers declare, and many readers believe, that the two differ not only in degree, but in kind. Preference shares, the argument runs, are entitled to dividend only when profits are available and directors have resolved to divide them. *Legally*, Debentures, however, are not part of a given company’s *capital* but of its *funded debt*. Debenture-holders, being creditors and not proprietors, are entitled to payment of their full rate of interest whether profits are available or not. The liability to remit interest on Debentures is created automatically

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lots'. These methods, however, did not suit the latest development. Some basis on which price could for the time being be fixed and relied upon had to be evolved, so that business could be carried on without samples or naming of any particular variety. In other words, the standardisation of the contract was badly needed. Hence, a new scheme was devised to take the place of the old one. Cotton was then sold on a "basis contract" e.g. "Basis Middling". In this way they adopted a basic grade in these early forms of trading with adjustments if other grades were tendered. The scheme was favoured by all since it gave a greater range and a better choice in respect of cotton to be delivered.

4. ESTABLISHMENT OF ORGANISED MARKETS

The marketing problems so increased in complexity as to make it imperative to devise a marketing machinery. This was accomplished by the establishment of organised cotton markets for the purpose of facilitating and regulating the trading in futures contracts, generally known as 'futures trading'.

Historical Survey of the World Exchanges: The history of the organisations of the world exchanges for carrying on futures trading in a more or less orderly way, tells us that the first exchange dealing in world commodities was at Antwerp.¹ But with the decline of Antwerp as a world exchange in the seventies of the sixteenth century, Amsterdam came to be the world's great exchange, where dealings in futures were made in buying and selling of grain. It quickly spread to other commodities such as, coffee, oil and oil-seeds, with the result that it soon developed into a technique similar to that of the present day. In Japan, on the other hand, futures trading in rice achieved a great importance from early days. The rice exchanges were established in the first quarter of the eighteenth century and futures trading in its modern sense commenced on a considerable scale after 1730. There were various other important produce exchanges preceding the modern organised markets of the world. Among them the first and foremost leading futures market was the Chicago Board of Trade. Organised in 1848 as a general market place for

¹B. H. Hibbard: Marketing of Agricultural Products, 1923, pp.114-124.

commodities, it received a charter from the state of Illinois in 1859. Rules and Regulations governing the conduct of the trade were adopted in 1865. They set forth the rights of both parties. Their adoption ushered in the system of futures trading providing the basis for the highly standardised futures contract of today. This was followed by the New York Produce Exchange. It had existed under different names since 1850, but it was not incorporated until 1862, when it received a charter from the New York State. Mention should also be made of the London and Liverpool Corn Trade Associations, whose formation dates back to 1853. From this brief survey of organised produce markets of the world, it will be observed that futures trading has been in existence for centuries. But the organised speculation on the cotton exchanges is of more recent development. This system was neither known nor discovered nor availed of or planned in advance by any person. It has been gradually evolved during the last century and a half to meet the necessities of growers in selling, of consumers in buying and of distributors in buying and selling.

Growth of Cotton Exchanges: Let us now briefly describe the evolution of cotton exchanges in the following cities: Liverpool, New York, New Orleans, Bombay, Bremen, Havre, Alexandria, Chicago, Osaka and Karachi—the more important organised cotton markets of the world.¹

Liverpool: Mention has already been made of the organisation of the Liverpool Cotton Brokers' Association in 1841. But they did not feel the necessity of formulating written rules and regulations governing the conduct of business up to 1863, when the size of speculative operations and continuous disputes necessitated the written rules governing the trade in 'to arrive' and 'futures' contracts. However, the association was influential enough to fix and expand an unwritten code of professional etiquette in dealings. A further advance was made when they commenced the publication of an Official Circular in 1864. After the termination of the Civil War and the completion of the Cable, trading in futures became so vast and complicated as to necessitate the establishment of a clearing

¹Cotton futures markets also exist in the following places: Ahmedabad, Surat, Indore, Sao Paulo and Shanghai.

machinery. This was accomplished by the formation of a cotton clearing house in 1876 which was followed up by a Cotton Bank in 1878. The right of using the clearing house was refused to anyone who was not a member of the Cotton Brokers' Association. Merchants doing business in futures were therefore handicapped to the extent of the amount of brokerage they were charged. This innovation gave rise to considerable friction between importers and brokers. Many differences arose between them but brokers did not give way to merchants under any circumstances. In consequence, merchants formed a new association, called the Liverpool Cotton Exchange in 1881. Hence, the position of both these rival bodies became absurd. In the end, differences were settled and the two bodies were absorbed into a new organisation under the style of The Liverpool Cotton Association. This body was incorporated in 1882. The introduction of the system of periodical settlement was the next stage in its evolution and this became universal in 1884. The tendency at the time was towards providing a variety of contracts to suit the requirements of different kinds of cotton. Hence, the introduction of the Egyptian contract in 1890, the 'Empire and Miscellaneous' contract in 1925 and the 'East Indian' in 1930.

New York: In New York the development of cotton futures trading naturally followed more or less the same lines as in Liverpool, with the exception that as a spot market the former was less important than the latter. We have already mentioned that the New York Board of Cotton Brokers was organised in 1868. By 1869 the trade in futures was well established. The Board needed expansion and hence, this body was succeeded by the formation of the New York Cotton Exchange in 1870. In 1871 it received a special charter of incorporation from the State of New York. Other stages of evolution of the New York cotton market were the same as those in Liverpool.

New Orleans: In the U.S.A., following the lead of New York in 1870 another important exchange was formed in the South. This was the New Orleans Cotton Exchange which was organised in 1871 under the general laws of the State of Louisiana. The important point to be noted in connection with this exchange is that, since New Orleans

was essentially a spot market, it did not begin trading in futures till 1880. The exchange in early years devoted its energy to develop trading in spot cotton, but the constant interest which developed in buying and selling of cotton for future delivery led to the inauguration of active futures trading in 1881. Since then this branch of cotton business has grown rapidly. Other stages of growth were as usual.

Bombay: As soon as the cotton exchanges were established in England and the U.S.A., we in this country followed them up. As mentioned above, cotton trade was carried on since the early days of the nineteenth century in Bombay, first at the Town Hall and then at Colaba where it remained for a long period of nearly 75 years. With its facilities for landing cotton brought by country crafts and for loading vessels in the Bombay Harbour and the ample open space then around it, Colaba at that time was the most convenient site for the trade. In fact, Colaba had proved to be a very popular place to businessmen in those days. This was on account of the fact that the largest proportion of Indian Cotton crop found its way to Bombay—the largest cotton port of the East. Thus the importance of Bombay was in its being not only a spot market but also an exporting centre. Trade gradually developed in spot and futures business. After the American Civil War trading in futures assumed quite a considerable proportion. But up to now there was no organised body as such to control the business in futures. Hence, trade became wild and buyers who were mostly foreigners were upset. Some sort of regulation was needed. This was effected by a body of Europeans who established the Bombay Cotton Trade Association in 1875. The association did not allow Indians to be represented either on the Board of Directors or on any of its various committees, in spite of the fact that the association framed rules and regulations for the conduct of business both in spot and futures including arbitration. At any rate, it may be said that this was the first important step in the evolution of the organised cotton markets in India, for, with its inception a futures market in Bombay came into formal existence.

The trading in futures increased and a huge amount of futures contracts became a regular feature of the mar-

ket. Since this association was a purely European body, discontent spread amongst Indians and reached its height in 1892. As a result, the formation of a rival body known as the Bombay Cotton Exchange came into existence in that year. On this body, the majority of members were Indians, but, as opposed to the former organisation, this body was not exclusively for Indians. A few foreigners also enrolled themselves as members. Rivalry between the two organisations continued and business transacted was made subject to the rules and regulations of one or the other body. The dealers however were not satisfied and the Bombay Cotton Brokers' Association was brought into existence in 1915. The main object of this body was to carry on and regulate dealings in futures business only.

It will not be out of place to note here that the development of futures trading in India was peculiar in its 'Modus Operandi'. It was peculiar in the sense that Bombay did not follow the stages of evolution of the overseas markets. It developed rather in its own way without the establishment of (1) a basis contract,¹ (2) a clearing house, and (3) periodical settlements. Consequently, when violent fluctuations occurred in the Bombay Cotton market, it brought about a crisis. The year 1917 was the case in point, when entire cotton trade was dislocated. The stability of firms was greatly threatened and large amounts of money were at stake. Considerable irregularity was the order of the day. Again, in 1918, prices rose to an unheard of level primarily due to the conditions created by the World War of 1914. They were aggravated by the unusual magnitude of speculative manipulation. The Government of India had therefore to step in to regulate the cotton trade. Under the Defence of India Act they constituted the Cotton Contracts Committee in 1918, to control the cotton trading in Bombay. A clearing house was established and a system of periodical settlement was introduced. In 1919, the Committee was replaced by the Cotton Contracts Board, a body constituted under the Bombay Cotton Contracts Act I of 1919. The Government thereafter invited this body to form a central cotton association which was formed under the style of the East India Cotton Association in 1922.

¹There was the specific growth contract.

Bremen: When cotton markets were being organised and put on a sound basis in England, America and India, the markets on the Continent did not lag behind. The first among them in point of time was the Bremen Cotton Exchange in Germany. Merchants and brokers founded an association designated, first, as the committee for cotton trade in Bremen, in 1871.¹ This name was changed a few years later to Bremen Cotton Exchange—Bremer Baumwollbörse. As contracts for future delivery developed and increased in magnitude, the rules were established for the regulation of trade. A system of sworn brokers was also provided. But the World War told heavily upon the Bremen Cotton Trade and even after the close of the war, conditions for a pretty long time remained unsettled. It was, therefore, not till 1925 that the Bremen Cotton Futures market was reopened and reorganised in its present form.

Havre: A second important organised market for dealings in cotton futures on the Continent was the establishment of the Havre Exchange known as "Le Havre Bourse". The Havre futures market dates back to 1880 and trading in contracts for future delivery in cotton commenced somewhere about 1882, when French spinners, as a rule, began to buy on 'call' based on their market.² This brought great importance to Havre. The peculiar feature of this market was that though brokers dealt in futures contracts, the clearing house cleared the contracts for merchants only. Theoretically they had an entirely different membership, since, only a member of the Brokers' Society had a right to negotiate contracts for future delivery. Moreover, there was no separately organised market for trading in cotton futures.

Alexandria: It has been claimed that dealings in cotton futures at Alexandria have taken place since 1861.³ But it seems probable that it was not until 1883 that the necessity of an association to set up regulations was felt. Up to now a few big merchants used to trade in contracts for future delivery and usually they bought back or sold out before the due date. A strange case occurred in 1883 when

¹The Cotton Trade Journal: International Edition: 1938: pp.80-90.

²The Cotton Trade Journal: International Edition: 1933: p.63.

³The Cotton Trade Journal: International Edition: 1931, p.184.

a certain party having sold futures contracts insisted on delivering the cotton. This brought home the necessity of having a written code of rules and regulations relating to the conduct of trading on a futures market. Hence the formation of "Association Cotonniere d' Alexandrie" in 1883.

Chicago: Though the Chicago Board of Trade is one of the oldest modern commodity futures markets of the world, the trading on it, up to a few years ago, was confined to grains and provisions. The Board instituted trading in cotton futures only recently in 1924. It has been claimed that Chicago was the first to establish the 50-bale contract, the desirability of which has been fully demonstrated by the rapid growth of the market since such a unit of trading was adopted. Likewise, it is also advanced that Chicago pioneered the establishment of 'Southern delivery' at Houston and Galveston.

Osaka: In Osaka, a futures exchange called 'Sampin' was established in 1894. It was originally planned that there would be trading in raw cotton, cotton yarn and cotton cloth. But trading has not been instituted in cotton cloth. From 1894 to 1927, the trading was confined to cotton yarn only. In 1927, trading was also inaugurated in raw cotton.¹

Karachi: Finally, we may refer to the latest organised cotton market evolved at Karachi. The Karachi Cotton Association came into existence in the year 1933. Karachi is essentially a collecting harbour for cotton from Sind, the Punjab and the North-West Frontier Province. Prior to the World War cotton from Karachi was generally carried to Bombay in sailing vessels and steamships. There was no organisation, and futures trading was done in Bombay.² After the war, Karachi appeared on the list of the cotton markets as an exporting centre and the individual contracts came into vogue. Contracts were based on buyers' own selection. In spite of this trading in futures developed and the Sind contract became the most speculative contract.

It may be pointed out that traders used to meet on a public road for futures business. There was no particular association to look after the business although

¹A. H. Garside: Cotton goes to Market, 1935, p.166. (Footnote).

²Personal investigation.

there were two organised bodies in existence under whose auspices two separate sets of contracts existed. These bodies were the Karachi Chamber of Commerce and the Karachi Indian Merchants' Association. Both had interest in the cotton trade and hence, a meeting of 8 representatives of each was called in August 1926. They formed in turn the Karachi Joint Cotton Committee. The first step towards the organisation of the cotton trade thus began with the inception of the joint committee. The then marketing system was not in consonance with the requirements of the cotton trade that was fast growing. It called for radical and immediate reforms. The committee therefore brought about: (1) the establishment of a single agency to regulate the cotton trade of Karachi; (2) the introduction of a uniform contract for futures dealings, and (3) the organisation of a regular forward market in Karachi.¹ These reforms paved a way for the establishment of a central association. In 1928 business in futures having expanded greatly, all futures contracts were subjected to periodical settlements, a system not in existence before. In 1929, the two parent bodies expressed themselves in favour of an independent association. Generally speaking it was their intention to prepare the ground gradually for the establishment of a central association with a clearing house on the lines of that in Bombay. In 1930, they first published bye-laws and rules governing the marketing of cotton. The joint committee then considered the advisability of forming an independent association incorporated under the Companies Act. A sub-committee was appointed for the purpose. It presented a unanimous report outlining the broad principles on which the association was to be formed. Finally, at a meeting of registered subscribers to the committee held in March 1933, a resolution was adopted accepting the proposition of an independent association and authorising the joint committee to proceed with the formation of the association. The association was duly registered in April 1933 and the committee handed over charge to it in July 1933.

It will be noticed that although trading in cotton futures has been conducted for several decades, Bombay, Karachi,

¹Report of the Karachi Joint Cotton Committee for the period 1927-31.

Chicago, Bremen and Osaka futures markets of today were set up after the post-war commercial boom and subsequent collapse.

5. CONCLUSION.

We conclude that the cotton exchange is the product of the needs of the commercial evolution of the last century. As a result of the natural growth of the country both in the direction of production and consumption of raw materials, together with the impetus given to this growth by better means of transport, the marketing process changed from a simple local transaction to one of wide, complex proportions. It is worthy of note to record the historical evidence which goes to show, as we have seen, that the spot business in cotton came first, then 'to arrive' contracts, and out of these two developed our modern system of futures markets. The growth of cotton exchanges as economic institutions for distribution was as natural as the growth of any other economic organisation. In fact, as the need for marketing machinery grew, the mechanism was evolved. There is however no particular date from which one can say that this practice began or had its origin. Instead it simply evolved out of the trading customs of the time. The cotton exchange marketing system is thus the evolutionary product of trial-and-error marketing practices that have followed a course of natural development from disorganisation to organisation.

CHAPTER III

ANALYSIS OF A FUTURES CONTRACT

HAVING traced the genesis of futures trading and reviewed the development of the leading cotton futures markets, we are now in a better position to analyse the futures contract. For this purpose, in the first instance, we need to examine the pre-requisites of futures trading and see how far a commodity like cotton fulfils them. Secondly, the characteristics of a futures contract as distinguished from a spot contract will be noted, and finally, the legality of a futures contract will be discussed.

1. PRE-REQUISITES OF FUTURES TRADING

In order to be suitable for trading on an organised market a commodity must have durability, homogeneity, large, uncertain and uncontrolled supply and demand, must be capable of standardisation and its price must be subject to wide fluctuations in a free, continuous and competitive market.¹ Each of these conditions favours the successful development of futures trading.

Durability: The chief condition needed for rendering any commodity suitable for a futures market is that it must be durable and should not be quickly perishable. This condition is fulfilled by cotton to a comparatively greater degree than any other agricultural product. The importance of this condition lies in the fact that under the futures contract deliveries are deferred to a future date. For instance, Broach cotton sold for July/August delivery in January would necessitate a pretty long period during which cotton will have to be carried. Delivery dates may be several months in advance of production and if a commodity is not sufficiently durable, successful development of futures trading will be restricted to that extent. It is therefore laid down that the commodity must be capable of yielding time utility. Cotton does comply with this in the sense that the supply of the present is capable of continuing as the supply of the future.

¹International Chamber of Commerce: Trading in futures:
Brochure No. 10, 1931.

Adequate Storage Facilities: For this purpose futures trading demands the provision of adequate storage facilities at market centres or elsewhere, where delivery is admitted. For instance, in Bombay we have got a large number of godowns at Sewree where cotton is stored and deliveries made as well as received. But the case of New York is different, since, deliveries on a New York contract are admitted at a number of places in the United States and storage facilities have to be provided accordingly. Such a provision permits the commodity to be stored during the months when the movement of production is heavy and makes it possible to effect forward sales. It gives them an advantage of holding and awaiting higher prices because of the possibility of either smaller stocks or larger demand in future. Storage facilities not only give an advantage to the seller but also to the buyer, for he is interested in knowing that the quality will not be adversely affected. Thus mere durability without the provision of adequate storage facilities does not render the commodity fit for futures trading. Conversely, such a provision without essential durability is of little use for futures trading.

Homogeneity: A third requirement is that the commodity must be homogeneous, both in character and quality. This implies in a general way that lots of a particular commodity should be interchangeable and the commodity must be such that contracts with reference to it can be made without any thought of identity. It is needless to mention that cotton has been produced in sufficient volume of homogeneous lots. One lot of a given growth of cotton is just as acceptable to the buyer or the seller as any other lot of that style. The quality of cotton can be determined by tests that yield almost identical results when applied by different persons. But for practical purposes, the commodity must be capable of quick and easy test. If the testing takes too long or costs too much it will either disqualify the commodity for organised trading or at least reduce it to one of spot trading. Homogeneity affords more freedom to buyers and sellers on the futures markets. A commodity whose units are not homogeneous would be a difficult one for futures trading.

Classification: In the fourth place, the product must be of such a character as to permit reasonable standardisa-

tion. It must be one that can be numbered, weighed, or measured with accuracy obvious to all. It is essential that the commodity be graded when bought and sold on a futures market. It is fundamentally an important condition to futures trading in the sense that a commodity shall be capable of accurate classification into a fairly small number of grades so that buyers may have some idea of what will be delivered to them.¹ If the lots of a commodity are homogeneous, it is easy to establish contiguous grades. Nevertheless, it is very difficult to find a commodity whose lots are exactly alike, since differences in grade arise from a variety of reasons. For instance, one lot of cotton would differ to a certain extent from another in matters of staple, cleanliness, strength, colour, etc. To overcome these difficulties classification is needed. Thus there are well-defined grades which are standardised for a particular growth and are readily identified by the trade.

Large Supply and Demand: It is necessary that the supply of the commodity and the demand for it shall under all ordinary conditions of the trade, be quite large. Without this element of large supply and demand, even if all other essentials were complied with futures trading in the commodity would not be possible. So far as cotton is concerned, we know that on the one hand the fields of India, the U.S.A., Egypt, China, etc., give us so vast a quantity as to make the supply felt heavily on the market. On the other hand, the factories of England, the Continent of Europe, the U.S.A., India, Japan, etc., consume so large a quantity that the pressure of demand is equally felt. Thus the world's aggregate supply and demand as well as individual supply and demand for a particular growth render it possible for cotton to be easily eligible for futures trading. The purpose of this qualification is apparent. It seems necessary to protect the traders against the danger of finding the entire available supply of a particular growth bought up and held off the market when they try to obtain the commodity to fulfil their contracts. Further, if the supply and demand are not large enough, the commodity would expose itself to cornering and prices may tend to be manipulated to the disadvantage of traders.

¹Tea has to countenance difficulty of grading as a result of which it cannot lend itself to futures trading.

Hence, the demand and supply of the commodity must be worldwide.

Uncertainty of Supply and Demand: Over and above the large volume of supply and demand, both these economic forces must be uncertain in their character. If supply and demand are certain, prices would readily be adjusted without the necessity of a highly technical machinery like a futures market. Even the certainty of one would render the commodity out of question, for, prices would then most probably be controlled by the opposite force only. When both these factors are not known in advance, there is ample room for the development of futures trading. Cotton is highly qualified and usually well-known in this respect. Its supply and demand are not only uncertain but also subject to a multiplicity of causes which we shall examine in detail in the chapter on prices.

Uncontrolled Supply and Demand: The large volume and uncertainty of supply and demand are not the only factors making for a successful development of futures trading, but they must also be entirely uncontrolled and unrestricted. Only very recently this factor has come into prominence. It is attributed to the policy adopted by various Governments of producing countries. For instance, the Egyptian Government have tried to lift artificially the prices of their cotton by holding it off the market. Similarly, the U.S.A. have not only tried to raise artificially the prices of agricultural produce like cotton and wheat, but they have also gone a step further in that they have tried to curtail the available supply by reducing the acreage. However, no attempts, either at pegging the price by State policy or manipulation have been successful in the case of cotton. Cotton has therefore stood the acid test of futures trading in recent years.

Wide Fluctuations: This is not all. A further condition is required to make futures trading attractive. The class of things dealt in should generally be liable to considerable fluctuations in price. These price variations help to create wide trading interest without which it will be difficult to bring about futures trading. It is the shifting demand coupled with the fact that supplies can never be estimated with exactness, that causes constant oscillations in price. These upward or downward price movements

may ultimately assume large proportions. To encourage professional participation price must not only be sensitive and frequently changing but it must also move over a wide range. Moreover, the factors causing fluctuations must necessarily be natural; allowing for the fairplay of economic forces which would go to produce constant fluctuations. It is needless to say that cotton is capable of meeting this condition. In fact, it is notorious for its price variations.

Free Competition: Finally, a commodity must have a free and continuous dealing. This makes the market most competitive and renders the commodity liquid. A commodity must therefore be such as to render it possible to turn the same immediately into cash by way of effecting a sale at the will of the dealer and vice versa. It may be held for investment by way of purchase with the hope of turning it into cash when the price became favourable. This demands a large body of operators comprising of various sections, namely, producers, merchants, consumers and professional dealers or speculators. Commodities available for trading in futures are those which have sufficient volume to be reasonably free from speculative control. From another standpoint, it is essential that transactions be numerous; otherwise, opportunities for speculative profit will be too infrequent to attract a considerable body of professional dealers. In their absence, free competition will be hindered to a very large extent. They make for rapid turnover and enormous volume of business which are essential to the character of futures trading. Besides, an organised market must be keenly sensitive and most responsive to every change in trade or general opinion. Cotton fulfils this important pre-requisite to a remarkable degree.

These are the various conditions prescribed for the successful development of trading in futures. Cotton not only fulfils each and all of the conditions laid down, individually and severally but is also the premier commodity in which futures trading is extensively carried on.¹

¹Besides cotton, futures trading exists in the following commodities: grain, sugar, cotton-seed, linseed, rape, oil-cake, rubber, jute, hides, leather, etc.

2. SALIENT FEATURES OF A FUTURES CONTRACT

After ascertaining that cotton meets all the requirements of futures trading and there are highly developed cotton futures markets in various parts of the world, let us now examine the characteristics of a futures contract.

Rules of the Exchanges Prescribe the form of a Futures Contract: The first and foremost peculiarity is that specific provisions of a futures contract are mostly determined by rules and regulations of a cotton exchange. Its form as opposed to that of a spot contract is prescribed by the exchange authorities.¹ The contract made is always subject to the bye-laws and rules governing futures trading. Parties have to follow this form and comply with the regulations. Moreover, there are numerous conditions which play an important part in trading operations. Each of these conditions has a definite reason for its inclusion in the form, and individually as well as collectively they are set forth with reference to the fundamental character of the futures contract. Hence, the form of a futures contract may be regarded as only incidental and supplementary to the main conditions laid down in the bye-laws or rules of the institution.

Mode of Effecting the Contract: Though rules and regulations of the exchange are implied in each contract of sale and purchase, the practice that is followed to effect actual bargain is, so to say, highly informal. The mode of effecting it is rather customary than official. Contracts are made orally at the 'ring'. Transactions on a futures market are effected so quickly and with such a speed that formality is rendered superficial. It may be thought for a moment that this informal mode is not binding. Contrary, to this expectation it is both binding and official. The contract is said to be official because the parties follow all the rules. It is binding because the parties get the contract confirmed either at once or on the following day. While still merely oral it has thus the same standing, force, and effect as a formal contract.

Futures is a Basis Contract: Perhaps, the best explanation for this informal mode of effecting a futures contract

¹For the Official Form of a futures contract refer to the Bye-laws or Rules of any exchange, say, the E.I.C.A. or the New York Cotton Exchange.

lies in the fact that it is a basis contract. Because the grade named in a contract is known as a 'basic grade', the contract is called a basis contract, e.g. "Fully good machine-ginned Broach" in Bombay or "White Middling Upland" in New York is the basic grade in the respective contracts. The commodity delivered may be either of the grade contracted for or of some other deliverable grades. Price is based subject to adjustments on this grade only. The basic grade selected must therefore be the most representative of all the grades in a year's crop. The futures contract being a basis contract thus gives choice or elasticity in the number of grades that may be tendered.

Range of Deliverable Grades: From what has been said above it is clear that in a futures contract provision is made for the possible delivery of a wide range of grades. Grades of better quality are deliverable at the price either of the basic grade or at premium and those slightly below the basic one are tenderable at a discount or concession. In making up the list of deliverable grades the range therefore must be made sufficiently broad to form a reasonable basis for the contract. The purposes of keeping many grades deliverable are: (1) to insure that the commodity delivered against futures will bear a definite relationship to the spot market and tend to maintain it throughout the year, and (2) to lessen the possibility of scarcity of deliverable supplies in any one season. This scarcity may have been caused by nature or by any man-made factor. To counteract this possibility such a provision is necessary; otherwise, the contract will be exposed to manipulation.

Question of Delivery: To facilitate the trader, it is provided that deliveries will take place only between specified dates of the period named in the contract. For instance, in Bombay, delivery will have to be effected during the months of April/May or July/August, in the case of the Broach contract. Further, days of delivery are also specified and delivery cannot be made on any other day which is not mentioned in the rules. Since a definite delivery period is provided for, the operator who does not wish to fulfil his contract in this way may accomplish it by selling out or buying back an equal amount.¹ The question of actual delivery is therefore only a matter of detail.

¹This process is known as 'offset' and is discussed in the chapter on clearing.

Seller's Option: The seller is given the option of making delivery on any day, of course, within the specified dates and period. Another option allowed to the seller is with regard to deliverable grades. It is he who selects the grade or grades to be delivered. The futures contract gives these two important options to the seller who, as a result, gets a considerable latitude in the fulfilment of his obligations. The reason for this appears to be that cotton in transit may be delayed by unforeseen circumstances. Both these options are meant to militate against a seller being penalised by reason of shortage in the deliverable stocks. Finally, they are intended to insure against manipulation of a futures contract.

Definite Size of the Contract: We have still to note a few other salient provisions. One of them refers to the size of the contract. It is kept definite and in round figures primarily with a view to facilitate rapid turnover and to some extent to meet the needs of the trade. For instance, the Bombay contract prescribes a unit of '50 bales of 400 lbs. or 25 candies of 784 lbs. each', while in New York it is '50,000 lbs. in about 100 square bales'. This size has to be maintained but the contract can be entered into any multiple of the prescribed unit.

Settlement Terms: Another important characteristic is that a futures contract is subjected to settlement terms which may be daily or periodical. This has been provided for in order to minimize the risk incurred by contracting parties. In certain cases the contract has to be backed by adequate deposits known as 'margin money'. Both these provisions are intended to protect and safeguard the operators against each other. Consequently highly efficient clearing machinery and methods form a part and parcel of the mechanism of futures markets.

Fixed Place and Hours of Trading: Lastly, a futures contract must be effected at a place reserved for that purpose and during the hours prescribed. In other words, a futures contract must have been entered around the ring in an exchange and during the business hours officially announced.¹

It will thus be noticed that the price and the period of deli-

¹In Bombay, however, such a contract is effected anywhere at any time.

ANALYSIS OF A FUTURES CONTRACT

very are the only terms left to the contracting parties to agree upon. This gives the operators a contract through which they can buy or sell cotton, with the least possibility of misunderstanding and confusion. The general characteristics reviewed above bring us to the conclusion that though the futures contract is highly technical in character, its salient features render it explicitly definite in its provision and unvarying in obligations. Its form is also made so clear and simple that a futures contract requires no immediate attention to either details or technicalities.

3. DISTINCTION BETWEEN 'SPOTS' AND 'FUTURES'

For most of the commodities there exists a 'spot' or ready cotton contract in which the commodity is bought and sold by private transactions involving specific lots and grades sold for a definite delivery date, and also a futures contract in which the transactions are effected on an organised market through the buying and selling of basis or standard contracts which call for the delivery of the commodity at some future date. Since trading in cotton is made of these two broad classes of transactions, it is necessary to compare and contrast futures with spot contracts.

'Spots' and 'Futures' Compared: Spot or ready cotton contract implies actual cotton of all kinds, grades and qualities that may be sold to those who need a particular variety and a specific grade to suit their requirements. A futures contract as contrasted to spot is a contract in a set form for sale or purchase of a stipulated amount of a basic grade at a fixed price, on a future date, on a futures exchange.¹ The first point of difference between these two contracts that strikes us is that futures trading is done on the basis of a contract grade without reference either to any specific lots or samples. Another distinctive feature lies in its size. The size of a spot contract is not definitely prescribed as is the case with futures. Tender can only be effected during the specified period and days in the case of futures, whereas, in spot, the period of time used for delivery varies according to the terms of contract entered into between the parties. Moreover, the seller of futures is given the option in mat-

¹cf. A. H. Garside: Cotton goes to Market: " 'Spot' may be defined as any specified bales of cotton stored anywhere in the world as opposed to 'futures' which may be defined as the unspecified bales covered by a purchase or sale for future delivery on a futures exchange." p.215.

ters of selecting both grades and the day of tendering. A further point of difference lies in the use made of the two contracts. It clearly distinguishes the nature and character of 'spot' and 'futures'. Again, the futures contract is executed openly in the exchange ring during specified hours, while the spot contract is negotiated privately and at any place during any time—day or night. In contrast with the spot contract the methods of bidding and offering, and rules prescribing among other things even the unit of price quotations, further render the futures contract a highly concentrated and systematised one. Being closely and definitely regulated a futures contract is a precise contract and a slight breach of the terms makes the operator liable to the other party.

Main Points of Distinction: (a) **Test of Volume:** There are two tests to distinguish these two contracts from each other. One is the volume of business put through. While the spot business varies with the seasonal supply and the demand during the year, it can never compete with a huge turnover in futures. The volume of dealings in futures as opposed to that of spots is enormous.¹

(b) **Test of delivery:** The other test lies in the actual delivery effected against spots and futures contracts. This point

¹This will be better realised from the following table which gives the monthly turnover for the last ten years:

Table* showing volume of trading in cotton futures at all American contract markets (New York, New Orleans, Chicago) by months, in millions of bales.

Months	28.29	29.30	30.31	31.32	32.33	33.34	34.35	35.36	36.37	37.38	38.39
August	14.6	9.0	7.2	6.0	9.6	7.3	5.5	3.6	3.0	4.6	2.8
September	14.1	11.4	8.0	7.7	10.2	8.7	5.4	3.4	5.6	5.8	5.0
October	14.5	11.8	7.5	8.8	5.1	6.1	4.0	4.7	5.1	5.0	3.9
November	13.3	11.4	6.7	8.3	6.2	6.6	4.5	3.8	4.4	3.6	3.5
December	9.5	6.0	6.5	4.4	3.5	2.6	2.7	3.2	5.2	3.6	2.8
January	9.2	6.2	3.7	3.5	2.4	6.9	2.8	4.1	3.6	2.5	2.5
February	7.5	10.7	5.1	5.3	4.0	8.8	3.1	2.2	2.7	4.2	2.3
March	12.5	9.6	4.3	4.5	3.1	4.0	5.5	1.9	7.9	3.5	
April	12.0	7.7	6.6	5.2	7.5	5.7	3.9	2.1	6.0	3.1	
May	9.9	5.8	5.7	3.6	10.9	3.6	3.8	1.9	2.7	3.2	
June	8.6	7.4	7.7	4.5	10.8	5.8	3.2	4.0	4.2	4.7	
July	8.7	4.5	5.5	3.2	14.3	6.3	2.5	4.7	4.0	3.5	
Total Seasonal:	134.4	101.7	74.5	65.0	87.6	72.4	46.9	39.6	54.4	47.3	

*Source: Commodity Year 1939 Book, p.219.

serves to emphasize the difference in their uses. A man who buys futures does not as a rule want the cotton itself. A man who sells futures does not want to provide the cotton. More generally in practice each man's turn is served by having concluded a contract in terms of which he gets protection or guarantee which serves as a basis for some other operation of which this is only a part. A futures contract is used rather as a weapon whereby the user may protect himself against losses that may be occasioned through sudden and unforeseen changes in prices, than as a means to merchandise the goods. As futures is a basis contract, the buyer is not sure of what he will receive. He, therefore, most probably sells out the contract before maturity. Moreover, futures if fulfilled by delivery may neither meet the specific requirements of a consumer nor of a seller who may not receive the price which his cotton will ordinarily command in the spot market. Thus it renders inadvisable both for the buyer to take delivery and for the seller to make delivery on futures. In fact, a common practice followed on the exchange is that the contract passes through many hands and later on, for the most part, the transaction closes entirely by way of buying back by the parties originally selling. This can be seen from the following table:

Table showing Volume of Deliveries on futures contracts on the Bombay and New York Cotton Exchanges.

Season	Bombay			New York		
	(year ending 31st August)			(year ending 31st July)		
	Deliveries Bales 000	Approximate Indian crop Bales 000	Per cent deliveries to total crop	Deliveries Bales 000	Total U.S.Crop Bales 000	Per cent deliveries to total crop
1930-31	170.3	6,750	2.52	598.0	13,932	4.29
1931-32	85.0	4,678	1.81	216.5	17,096	1.26
1932-33	128.9	5,979	2.15	275.2	13,002	2.11
1933-34	125.9	6,492	1.93	253.2	13,047	1.94
1934-35	203.0	6,477	3.10	154.8	9,637	1.60
1935-36	306.4	6,837	4.77	41.7	10,638	.39
1936-37	146.1	7,348	1.98	170.2	12,399	1.37
1937-38	160.7	5,544	2.89	237.0	18,945	1.25
1938-39	74.7	5,120	1.45	126.2	11,623	1.08
1939-40	121.8	4,942	2.46	122.5	11,481	1.06

The above table shows that the actual amount of cotton delivered on futures is quite negligible when compared with the figures of the crop produced. This is a natural consequence of the facility offered by the futures, whereby a buyer who does not wish to accept delivery may sell an equal amount of the same contract long before the delivery period and then offset one transaction against the other. The proportion of cotton actually tendered and accepted is, therefore, in the highest degree quite insignificant compared with the contracts entered into in futures.

In the end it may be observed that while the character, conditions, use, place and volume of futures trading are distinct from those of spot trading it should not be thought for a while that they have no connection altogether with each other. On the contrary, spots and futures are closely related through the right granted to those who trade in futures to convert their contracts into spot transactions. At the back of the futures is the commodity itself. The seller may insist on making delivery and the buyer may insist on receiving delivery thus turning their futures into spot contracts.

4. MODUS OPERANDI OF FUTURES.

The above mentioned differences may strike us as being important and in a way they are. However, the arch-point of difference between the 'futures' and 'spots' lies in the purpose and character of the two contracts. It is therefore appropriate to examine the purpose and legal nature of a futures contract.

Purpose of Futures: A spot contract is usually employed to merchandise the commodity, but a futures contract is used (1) as a guide in arriving at spot cotton prices and (2) as a hedge, that is to say, to protect those engaged in the industry, mainly merchants, distributors and manufacturers against violent fluctuations in price. They can insure or protect themselves against appreciation or depreciation by buying or selling cotton for future delivery to the extent of their commitments. The futures contract is used for insurance purposes. The insurance is not obtained in the form of a policy but in a double transaction known as a 'hedge'. Moreover, the futures contract was designed for the purpose of eliminating the risk of price changes faced by the merchants distributing cotton and cotton goods. After

many years of experimenting with spot contracts, progress was made towards the perfection of the futures contract. Those who deal in ready business or spots have also found a way to use futures as a price-making instrument. They base their spot business on the quotations of the futures contract. It will thus be appreciated that the main purpose of futures is to substantially reduce the risk to which a dealer is exposed in the ordinary course of the business; and speculation is a by-product.¹

Legality of the Futures Contract: The law distinguishes between a contract to sell and a contract of sale. The former is simply an agreement to sell in which the title does not pass until the various conditions to the contract are fulfilled. Such agreements are known as "executory contracts." As against this in a contract of sale, the general property rights pass to the buyer at once and it is known as "executed contract". From this legal point of view it will be seen that a futures contract is an executory contract while a spot contract is of the nature of executed contract. In all cases, spot contracts, thus, differ from futures contracts on this point of law. A futures contract should, therefore, be thought of as a 'right' to the cotton rather than the cotton itself. In dealing in futures the trader is dealing not in the actual commodity but in the 'claim' on or contracts for the commodity. Such a contract is equally legal and binding on the parties. Everyone in the cotton market knows that the buyer of a futures contract is liable to have cotton tendered to him, if he lets it run to the due date, and the seller will be called upon to deliver the cotton by the end of the delivery period, if he has not previously bought in a similar contract. In spite of this, it is believed by some that a futures contract is meant for gambling, pure and simple, because, delivery can be avoided. We have seen that the purpose of a futures contract is that of insurance which renders it futile to be fulfilled by actual delivery and hence, it is settled by offset or substitution. The fact, that a large proportion of transactions in futures are settled by these methods, has given rise to cases in which the legality of the operation has been brought into question. Those who have attempted to attack its legality

¹Refer to Chapters on 'Hedging' and 'Speculation'.

have done so by attempted analogy. When contracts are settled in the above manner they involve only the payment of price differences. This fact affords some clue to the opponents who maintain that futures belong to the realm of gambling and wagering contracts. It seems that these people forget the fundamental point at issue that the parties to the contract are held strictly to its terms under the law; that is, at maturity of the contract the seller must deliver and the buyer must receive the cotton called for by the contract unless otherwise settled before the due date and whether delivery takes place or not is beside the point. Moreover, a man may lawfully sell goods or stocks for future delivery even though he has none in his possession, if he really intends and agrees to deliver them at the appointed time. Such a transaction constitutes a valid contract and is enforceable at law. It may therefore be observed that there is nothing inherently illegal in futures.

Bank Credit Analogy: A fairly good analogy is to be found in the relationship which our commercial credit structure bears to bank reserves of gold and legal tender. The cash payments so largely offset one another that only a small percentage of cheques involves a transfer of cash from one bank to another by way of difference. The soundness of the system in both the cases depends on any individual or bank being able to get or make delivery on demand. So long as this can be done a futures contract is no more fictitious than the system of bank reserves or credit. Thus the mere fact that one makes a contract opposite to that into which he has previously entered does not necessarily mean that he is dealing in differences, even if on the face of it, it may appear that these are contracts for dealing in differences only. The net effect is to be gathered from a legal standpoint and 'intent to deliver' is the real test of a gambling contract. It has been decided by the courts a number of times that the offsetting of contracts does not of itself prove lack of such intent. An operator, however, may buy having in his mind no intent of taking delivery or he may sell with no intention of making delivery. This is a point difficult to judge. It is, therefore, not his unexpressed mental attitude which determines legality or illegality. What decides this point of law is the fact that he may be compelled to deliver if he does not offset his con-

tract as a seller or he may be compelled to receive cotton as a buyer.

Justice Holmes on Futures: The position of the courts in this connection was best illustrated in 1905 by the decision of the United States Supreme Courts in the well-known case of the Chicago Board of Trade vs. The Christie Grain and Stock Company where Justice Holmes observed: "The contracts made in the pits are contracts between the members. We must suppose that from the beginning as now, if a member had a contract with another member to buy a certain amount of wheat at a certain time and another to sell the same amount at the same time, it would be deemed unnecessary to exchange warehouse receipts. We must suppose that then as now, a settlement would be made by the payment of differences. This naturally would take place no less that the contracts were made in good faith for actual delivery, since the result of actual delivery would be to leave parties just where they were. *Thus, set-off has all the effects of delivery....*the fact that contracts are satisfied in this way by set-off and the payment of differences, detracts in no degree from the good faith of the parties and if the parties know when they make such contracts that they are very likely to have a chance to satisfy them in that way and intend to make use of it, that fact is perfectly consistent with a serious business purpose and an intent that contract shall mean what it says."

Similarly, in numerous cases the courts have held that as long as delivery is one alternative in fulfilling a futures contract, it is adequate enough for legal purposes. Being simply a convenient and inexpensive way of accomplishing what would otherwise be a very burdensome and useless process, offsetting constitutes delivery in a symbolic form. Because a futures contract provides for actual delivery the law puts the stamp of legality on it. But where this right is removed and delivery is not contemplated it is apt to be inferred that the parties to such agreements are merely betting on price differences.¹

¹Such cases are those of Ank and Farak business, dealings in Kutch American, etc. It may here be observed that this sort of gambling has no relation with the cotton trade as such. It comes under the Prevention of Gambling Act, 1935.

CHAPTER IV

ORGANISATION OF FUTURES MARKETS

IT is now well over 70 years since cotton futures markets first came into existence and began to function as the media for transferring and offsetting price risks; and today the cotton trade of the world is more largely centred around them than ever before. The evolution of these markets has already been traced in the second chapter, and we shall now discuss their organisations in general. This will be illustrated by a description of the organisation of a few leading markets in the following chapter.

1. OBJECTS FOR WHICH THE FUTURES MARKET IS ESTABLISHED

One of the essentials of trading in futures is that it must be established in a place where buyers and sellers can meet one another. A market is a place where a fine balance can be struck between the available supply of and demand for a particular product at a particular time, with the result that a uniform price may be established within the market area. Where the production and consumption are world-wide as in the case of cotton this area usually represents the whole world.

Spot and Futures Markets: This is more true of a futures market than that of a spot market. Considerable time elapses between the growing, marketing and manufacturing of cotton. For this reason it is important that during this interval there should be some methods and machinery through which different interests may, if they want, avail of the much-needed protection against price hazards. This is accomplished by a futures contract which in turn necessitates the institution commonly referred to as a futures market as opposed to a spot market for the same commodity. Much confusion, however, centres around these two component parts. An exchange is a trading place and hence, is itself a market. A futures market is formed by an association and transactions are made only through members, whereas a spot market is generally a

free market. Codified rules easily ascertainable by all interested in the commodity, in contrast with uncertain trade customs prevailing in different spot centres, go to account for this difference. Moreover, markets where futures dealings are of considerable magnitude exhibit certain features unknown to spot markets. These characteristics may be found in frequent transactions and rapid turnover resulting in continuous price quotations which may be more or less influenced and at times, brought about by pure and simple technical conditions. Another important peculiarity is that a futures market is composed of professional traders maintaining an elaborate establishment for the prompt execution of orders. The elaborate equipment is also employed for the collection and dissemination of statistics and news interesting to the trade. Thus, in contrast to the spot trading, open and continuous futures trading during certain hours each business day, with sales and information broadcast throughout the world, keeps producers and dealers in close touch with changing prices.

Number and Location: Widespread transactions take place in the form of dealings in futures upon the great organised produce markets. There are several such markets located in important cities throughout the world where communication and transport facilities are adequate and funds for the financing of transactions can easily be secured. Usually commodity markets flourish in cities through which a substantial portion of goods passes each year. For instance, Bombay handles more than a million bales of cotton each year and hence, it is regarded as an important world market for cotton. Cotton futures markets located at Bombay, New York and Liverpool are of major importance. In addition to these, there are important futures markets in Karachi, New Orleans, Alexandria, Havre, Bremen, Osaka, Chicago, and Ahmedabad. The futures markets at Surat, Shanghai, Sao Paulo and Indore are of minor importance. There is also an important spot cotton market in most of these cities. However, futures trading is concentrated in a few leading markets such as Bombay, New York and Liverpool. Approximately two-thirds of the volume is put through them. Their aggregate business when measured by monetary value would surpass many a time the total value of the remaining

futures markets.¹ The importance of these highly centralised markets may be attributed to the magnitude of the total turnover made on their floors. In fact, they are most sensitive and continuous. Traders would naturally resort to them more often than to any other market, because, there the operators get a sort of assurance that transactions will be effected at current prices.

Exchanges and Trade Associations: The present economic order makes it imperative to have an exchange established with the distinct objects of serving the needs of different trades in different commodities. We have futures exchanges for a large number of commodities and a cotton exchange may be said to head the list. A great deal is said in favour of such exchanges, but, on the other hand, they are equally subjected to criticism. A considerable part of the criticism comes, however, from the people who either do not understand their nature or fail to realise the benefits. The identity of these exchanges is sometimes confused with that of the monopolistic associations, such as, big corporations or mergers which are formed with the avowed purpose of regulating either prices or production and at times, both. The futures exchanges for commodities are quite distinct in their character and altogether different in nature. They are established by the traders who agree to create a market and protect it for their individual as well as mutual benefit. The point may further be emphasised by the fact that the exchanges themselves neither deal in the commodity nor make the price of it. For instance, the cotton exchange never buys nor sells cotton. As an institution, it has no profit or loss arising from the business activities or any market position. It only furnishes conveniences to facilitate futures trading. Moreover, the exchange is maintained, as we shall see later on, largely through dues and fees from its members. Again, some one might compare these exchanges with institutions such as Merchants' Chambers or Chambers of Commerce which are said to be more or less similar in this particular aspect. But this can be dismissed by pointedly bringing

¹In the absence of any statistical data available for all the cotton futures markets of the world, it has not been possible to give any figures in support of this common belief expressed by almost all the leading concerns to our query.

home the difference between the respective characters of these organisations. The cotton exchange is homogeneous as compared to the Chambers of Commerce. A membership of the latter is open to all irrespective of particular trade or interest while a membership of the former consists only of those interests who are directly or indirectly connected with cotton trade or industry. Criticism is often made against the exchanges that the members manipulate operations and aim at suppressing competition.¹ How far this allegation is borne out, we shall examine in its proper place, but for the present these critics may be referred to the National Industrial Conference Board, Inc., New York, who have stated that futures exchanges are organised chiefly to promote trade, "by establishing business relationship conducive to intelligent and orderly competition."²

Their Purposes: Exchanges are formed with the avowed purpose stated in their Memorandum of Association or in the Charter. The aims and objects of the East India Cotton Association might be reproduced here as an example:—

The objects for which the Association³ is established are:

1. To provide and maintain suitable buildings or rooms for a Cotton Exchange in the City of Bombay and elsewhere in India.
2. To provide forms of contracts compulsory or permissive and regulate the making, carrying out and enforcement or cancellation of contracts.
3. To adjust by arbitration or otherwise controversies between persons engaged in the cotton trade.
4. To establish just and equitable principles in the said trade.
5. To fix or adopt standards or classification of cotton.
6. To acquire, preserve and disseminate useful information connected with the cotton interest throughout all markets.

¹Personal interviews.

²Trade Associations: Their Economic Significance and Legal Status: 1925, p.97.

³Ref. to Memorandum of Association of the E.I.C.A., pp.1 to 6. Only important objects are reproduced here.

7. To control, promote and regulate the Cotton Trade in the Presidency of Bombay and elsewhere in India, improve its stability and augment the facilities with which it may be conducted.

8. To establish and maintain a Clearing House for the purpose of dealing with cotton transactions.

9. To prescribe the principle of framing of contracts with a view to eliminate the temptation and possibility of speculative transaction.

10. To make from time to time Bye-laws for the control and regulation of membership of the Association and of cotton dealings in the Presidency of Bombay whether under the Bombay Act XIV of 1922 or any statutory modification thereof or otherwise.

11. To establish, take over, control, manage, or regulate the Cotton Market in Bombay or the Cotton Market or Markets in any part of India.

12. To establish and carry on a Bank to undertake banking business.

2. PHYSICAL EQUIPMENT

The physical equipment of an exchange refers to the trading ring, offices, wire connections, and various other facilities provided by the futures market.

Trading Ring: In all the futures exchanges a large open space is provided where the operators meet. It is called a trading floor. It is the most important physical feature of the market. The floor is located in a building mostly owned by the association. A central and most conspicuous place in the floor is the 'ring'. This ring is commonly known as a trading ring. It occupies a prominent position because it is in the ring that all futures business is supposed to be effected. All the operators get together in the ring where they freely exchange their views by way of offering or bidding. The ring is designed to bring about the concentration of demand for and supply of cotton. Since the buyers and sellers are scattered all over the world the ring can be described as the focal point of their views. There is an elevated platform known as the 'rostrum' within the area of the ring. It is intended to serve the operators across the ring. Sometimes, the trader is

accompanied by a reporter who stands by him to note the transactions.

Wire Connections: Besides the ring, spaces are provided for sets of telephone booths. Private wires are connected from telephone booths on the floor to the offices of operators and member firms. It is designed to transmit orders to the floor traders from the offices. In the same way, orders when executed are confirmed. Apart from the direct wires to the offices, there are also other wires connecting the public telephone system on the floor. In some big markets there are batteries of telegraph instruments through which large telegraph companies receive and deliver telegrams from clients to the members ordering purchases or sales of futures. There is, similarly, a telegraphic reporter's equipment through which continuous quotations are sent out. In this way, wire connections afford facilities which make the ring easily accessible to all the prospective traders. Orders are telephoned to the floor where an attendant receives and passes them over to the ring trader who in turn executes them. These connections enable the operators to make instantaneous report of the execution of orders to their clients.

Offices: On the trading floor only cabins are located but around the floor and in the building of the exchange a number of offices of the members are situated. There are also executive offices of the exchange and committee rooms in the vicinity of the trading floor. A member's office contains sitting and wire accommodations both for the staff and for the reception of customers. Apart from these facilities, there is a quotation board on which are recorded current quotations of cotton and other markets. Quotations received from abroad are also noted on the board. It is this posting of quotations together with the telephone connections that supplies much of the glamour associated with such offices.

Other Facilities: But the physical equipment means more than merely the trading ring, wire connections and members' offices. On the floor and above the ring, high on the walls, there are black boards with facilities for recording the prices on current transactions and posting the statistical data, weather reports, crop conditions, etc. There is a visitor's gallery too.

3. STATUS OF FUTURES MARKETS

In external features and many of its methods of operation, the organisation of the cotton futures market is very similar to that of the securities market.

Nature of Organisation: Exchanges are organised corporations incorporated under the laws of the State or country in which they are located.¹ Cotton futures markets are created directly or indirectly by law and in some instances very closely supervised. The exchange can act as a business entity, hold and transfer property, use a common seal and make such rules and regulations not contrary to the law for the due performance of its duties. It can levy fees and recover dues, receive money on deposits and advance money from time to time. It can also raise loans, and enter into any arrangement with the Government, Railway, Municipality, etc., and to carry it out, it can give rights, licences, privileges and concessions. Moreover, limited liability attaches to its membership as in the case of an ordinary joint stock concern.

Character of Futures Markets: The organisation of commodity exchanges is of two kinds, general and special. A general exchange is one on which several commodities are dealt in. On the other hand, a special exchange is one on which one article alone is sold. On exchanges where more than one commodity is traded in, a separate ring is provided for each commodity. For instance, on the Chicago Board of Trade there are separate rings for wheat, corn, oats and cotton. Similarly, on the floor of the New York Cotton Exchange, trading is carried on both in cotton and wool tops. In New Orleans, trading takes place in cotton and cotton oil-seeds. Other similar instances are furnished by the Osaka Sampin, Alexandria and Havre exchanges. Hence, the organisation of all these markets come under the first category. The cotton markets in India and those of Liverpool and Bremen fall under the second category, because the commodity dealt in is only cotton.

Membership of Exchanges: A glance at the list of members of a cotton exchange will show that it is representa-

¹Markets in India except the E.I.C.A. however are not incorporated under the State Charter. They are private bodies.

tive of all sections of the trade both at home and abroad. Manufacturers, dealers, brokers and merchants in India, England, Europe, America and Japan hold memberships on any leading market. Some of them will be found even on the list of all the three leading markets, viz., Bombay, New York and Liverpool. Admission to membership is carefully supervised. Close scrutiny is made of each applicant's business record and commercial standing. Qualifications required of a member are three in the main: (1) lawful age, (2) good character and (3) sound financial standing. The application of a prospective member must be in writing and in the form prescribed by the management duly signed by the candidate along with a proposer and a seconder who must be members. If he is a member of a partnership concern his firm is registered by the exchange and will have its business transacted at the commission rates prevailing for members. These registered firms, like the members, are subject to regulation by the authorities for any unbusinesslike conduct.

Memberships are of various types, viz., (a) Full, (b) Associate and (c) Special. Ordinarily, a member has to pay a deposit in the case of Bombay, in Liverpool a share issued by the Association should be subscribed and in New York a seat must be bought. He has also to pay all annual fees, dues, etc., to the exchange. These dues are collected not to make profit but to meet the cost of maintaining the exchange. The deposit or a share or a seat is a member's interest in the exchange, similar to a share in a concern evidenced by a share certificate. Membership of the more important exchanges is a valuable privilege. It is often purchased at a high price because of the fact that the membership is limited. Since it gives the privilege of doing business in the ring it commands at all times a certain market value. Further, it creates confidence among the members while dealing freely on the floor. Each operator thus has confidence that the opposite party is financially sound. In the event of financial troubles, a member creditor has full recourse to the deposits, proceeds of a share or a seat belonging to the party involved. Of course, priority is given to the exchange for membership dues, fees, etc. In this way, the status of the futures market and of the members, as outlined above, is well-

established. It greatly aids in rendering the futures contract inviolable.

4. PERSONNEL OF THE FUTURES MARKET

Since the membership of the futures market is made up of persons scattered throughout the world, less than half of them actively participate in the business on the floor.¹ Again, all members do not transact the same type of business. Some concerns do brokerage business only. Others confine their activities to orders originating in the conduct of their own business. Many houses handle business both for themselves and for their clients. There are also speculators and scalpers on the market.

Brokers: Members when acting as agents on behalf of others are termed brokers, and the remuneration received by them is called brokerage. By far the greater part of trading in the ring is done by brokers. The majority of the members are brokers in any one market and a large part of their trading consists in the execution of orders from their clients. The position of a broker is that of a principal to the opposite contracting member party, while his relationship with a non-member is that of an agent. As agent, he accounts to his principal for profits or losses, incidental costs by way of commissions, etc. He protects himself against financial responsibility on the part of clients by requiring suitable deposits from them. The broker offers his services to non-members and remains satisfied with whatever remuneration is received in the form of brokerage. This class is supposed not to deal on its own account. Otherwise, they are termed as 'floor brokers'.

Commission Agents: In addition to this type of brokers, there is another class of people who stand more or less on the same footing and are called commission agents. They also mostly rely on the commission and maintain the same relationship as that of brokers with non-members and members. The only difference is that they usually carry on both the parts of the marketing business, viz., spot and futures; whereas, brokers may or may not have interest in spot business. Nevertheless, both are members of

¹Some people have told us that even one-third is not actively participating in the business on the floor of the exchange.

an exchange, carry financial responsibilities and put in quite a considerable amount of business on behalf of customers. Both maintain large offices and suitable places of business to receive clients. Some of the larger firms run a branch office too. Some of them run departments of statistics and collect market news and other relevant information affecting price. They spend large amounts in preparing and circulating useful market data among the customers. For all such expenses, their only source of income is brokerage or commission earned. Hence, their turnover should be large enough to cover these expenses and leave a profit.

Floor Brokers: Every member has a right to transact business at the ring. But in most cases, the members do not attend the ring,¹ and the business is carried on by a class of people who are termed 'floor brokers'.² This class of brokers is referred to as brokers' brokers. They may or may not maintain big establishments and have no customers' risk. Their responsibility to the firm on whose behalf they carry on trade is no doubt considerable and when the time comes they 'give up' the name of the principal and thus free themselves from any risk. Brokerage claimed by the floor brokers is therefore a comparatively smaller amount than that received by principal brokers. These people generally 'square up' the business at the end of the day. Though business is done in large proportions on either the buying or selling side they do not carry any transaction forward. What is taken into consideration is the total turnover and the net position of the day. Sometimes, it so happens that they do their own business and at the same time work as agents to any member. Thus, they at times act in dual capacities: (1) as floor brokers and (2) as scalpers. The skill of this class of people lies in their ability to correctly appreciate and judge the circumstances which may be temporary in nature but nevertheless effective on the price level.

Scalpers:³ A scalper may or may not be a member of the exchange. He is a trader who constantly watches

¹Personal interviews.

²In India, these people are referred to as 'jobbers' or 'sub-brokers'.

³In India, 'Scalpers' are called 'Taravanivalas'.

price movements and is always ready to buy or sell even at a slight variation. Scalping is undertaken by some enterprising people who enter into transactions on their own account and close the business before the end of the session. It helps in the smooth functioning and broadening of the market. A scalper's plan of operation is to make a turnover on the whole and he does not care whether a particular transaction brings him profit or loss. What he counts upon is the average of the day and remains satisfied with a small profit. If six out of ten units are successful he accounts himself fortunate. A scalper's plan is generally to buy at one minute and sell at the other if he finds a chance of making a profit say of annas four in the case of India or .1 or .2 per unit of contract in the case of Liverpool or New York. He turns immediately with the market on both sides at a very small margin. He has no opinion about the market nor need he have any for the successful accomplishment of his job. For success he has to depend more on natural trading instinct than general knowledge, because he has to get his remuneration out of small and immediate fluctuations. He has to be a bull at one moment and a bear at the next and thus take his turn, known as a 'jobber's turn' in a Stock market. He has also to be in and out of the market continually. He is supposed to be on the alert so that his transactions may be closed should the market move against him. Scalpers act as middlemen between buyers and sellers. It is the scalper who indiscriminately becomes a ready buyer to a seller and vice versa at any moment of the trading day. He is therefore considered a valuable part of the marketing machinery. If there was no scalping one would not be able to buy or sell large quantities of futures. One would have rather to go and find the buyer or seller as the case may be. The ease with which a deal is put through is the real test to justify the existence of this class of dealers in the market.

There is another type of scalpers who are not seen in the ring but may be in a member's office or elsewhere. They carry on scalping business on the basis of quotations received. By the facilities provided in a member's office by telephone, wire connections, etc., they are afforded some sort of ease in scalping in and out of the market.

The limitation of their business lies in the fact that they have not got the advantage of being present on the floor and trading personally in the ring. As a result, they are handicapped in taking full advantage of a minute to minute change in price. In addition, they have to pay commissions to members and thus sacrifice a part of their profits. A point of difference to be noted in connection with these two types of scalpers is that the latter often carries his business forward and he may not, as a rule, even out his market position even at the end of the trading session, as is the case with the former.

Professional Dealers: There is still another class of operators styled as professional dealers or 'Speculators'. In contrast to scalpers the members of this class base their business on general and broad factors calculated to affect price in the long run. They do not depend upon the minor fluctuations but on the general outlook and act on their own judgment. They neither confine their position to any particular day's trading nor do they base their idea on a short view. They carry their business forward over periods of several days, weeks or months. For the sake of clarity this class may safely be divided into two divisions—large scale and medium scale speculators. A large scale speculator usually makes speculation his sole profession while a medium scale speculator does not; for the reason that the trade interest of the latter lies in something else than speculation alone. The latter depends upon factors affecting the market for the time being, while the former takes into consideration factors affecting the price movements as a whole. Again, length of time may vary from a day to a comparatively short period in the case of the latter, while in the former case, it varies to an indefinite period. Among speculators, there are both members and non-members. The advantage of being a member speculator over the non-member is obvious. The member speculator gets full knowledge pertaining to factors affecting the price of cotton, while the non-member may not have it. The non-member is therefore guided by a member-broker or commission agent upon whom he has to rely for every relevant piece of news and information affecting the market. Assuming that both get equal information, success depends not on the news only but also upon the

financial capacity, personal power, and will to do the business.

Hedgers: Mention should also be made of a class known as 'Hedgers'. Their main object is not to make money out of price changes. Contrary to the objects of speculators, scalpers, floor brokers, etc., their aim is to protect themselves against price hazards in the course of their normal merchandising business. These are the people whose main business lies in other phases of marketing rather than in futures. They make use of futures to avoid probable losses,¹ while speculators as a class employ futures to make money. In other words, one intends to shift the risk whereas the other readily shoulders it. Hence, an analogy may be drawn with the business of insurance that a group of speculators constitute the insurers and that of hedgers the insured. With this class there is no question of being a member or a non-member as in the case of speculators. All hedgers generally stand on an equal footing. What is important is not the knowledge of intricacies but the volume of trading a hedger needs to put through. For this purpose, most of the concerns forming the class of hedgers hold a membership of the exchange so that they may secure its advantages particularly in matters of commissions.

Should they act as Traders?: The question of the exact capacity in which a member puts through a transaction is one of great importance, both from the point of view of brokerage or commission and from the point of view of moral liability on the contracts. With the exception of hedgers, if we take all the above named types together as a class of operators on a futures market, they at times, not only overlap the functions of one another, but also tend to be floor traders. They frequently do business on their own account as well as on account of their principals. A serious point arises when a broker or a commission agent or a floor broker, over and above executing orders received from clients transacts business either on account of a firm or individually. When one gets a big order either to buy or

¹The amount of loss likely to result owing to adverse price variations will generally be offset by a corresponding gain in an opposite transaction either in futures or spot. See also chapters on 'Hedging'.

sell, he is naturally tempted to take advantage of it. If he thinks that the order is likely to affect the movement of prices appreciably, he may partly precede his clients' orders, by buying or selling as the case may be, first on his own account and then transfer the same to the client with probable benefit to himself. Hence, their business morality is questioned. This state of affairs heavily tells upon the broker's duty as an agent to his principal. A broker is supposed to exercise due care and take every precaution to protect the interests of his principal. It renders the brokers' function quite distinct from that of a floor trader. He should not violate his function as an agent to the client. The interests of the clients who may be producers, merchants, shippers, or millowners would be better served if the broker's and a floor trader's job were strictly separated by the exchange. At times, he acts for himself on the strength of the orders in his pocket and grabs the difference. This is apt to make him less fair-minded in his treatment of his client's business. Another important objection that can be raised in this connection is that he becomes so much engrossed in his own business, that he is likely to find little time to remember the actual position and requirements of his clients. Moreover, it is not possible for him to act as a good and honest agent, if he undertakes a job of a floor trader simply because his own prejudice will not allow him to take a detached view about the market. After all, floor traders and brokers are men of different categories. One is a helper to the trade, i.e. he meets buyers and sellers in the market while the other becomes the principal i.e. he buys or sells himself. Brokers, therefore, should trade through floor traders and not on their own account. There is thus room for regulating their individual functions and prohibiting them from acting as principals and agents at one and the same time, in one and the same transaction. The authorities of some of the exchanges have attempted to bring about the division of function by prohibiting the members to act in the dual capacity of an agent and a principal. But this is not enough. They should try to regulate a broker's business by enforcing upon him the rule that a broker should not buy or sell on his own account. How far this is practicable is difficult to say but a high standard of business morality is likely to improve matters.

5. ADMINISTRATION OF FUTURES MARKETS.

The general organisation and operation of different cotton futures markets are more or less the same in principle and differ only in detail.

The Board: The central administration of a futures market is vested in the Board of Directors or Managers. The management of business and control of the exchange lie with the Board, who exercises all such powers, authorities, duties and discretion expressly conferred or imposed upon them and does all such acts and things that may be done by the exchange. An organised market is governed by a president, a vice-president and a group of members called directors or managers. The directors are elected annually.¹ The Board elects one of its members to be a president and another to be a vice-president. It adopts rules and regulations which are designed to carry out the objects of the exchange. It is the Board who is the ultimate authority of the exchange having final jurisdiction in all questions except in matters deliberately reserved for reference to and voting upon by the general body of members. The Board governs the organisation largely through various standing committees.

Officials: The Board appoints salaried officials of the exchange to carry out the daily routine of the executive work. These officials are invested with such powers as the Board may think expedient. Their duties are also determined by the Board. Among the officials, the Secretary is the chief administrative officer of the exchange upon whom rests much of the responsibility for the smooth functioning of this machinery. He devotes himself entirely to the business and affairs of the exchange. He is aided by one or two assistant secretaries and other clerical staff. There is another important officer—the Manager or Superintendent—in charge of the Clearing House. He looks after all affairs pertaining to the Clearing House, and is held responsible for the leakage of information with regard to a member's position.

¹On some exchanges, however, the terms of all directors do not expire by the end of each year. Either one-half or two-thirds of the Board retire in rotation and the required number is elected annually.

Committees: The detailed affairs of the exchange are handled by a number of Committees. A Committee consists usually of five or seven members, but at times, there may be only three. The Board appoints one or two members of its own at the head of most of the committees. The term of a committee is one year or less at the discretion of the Board. Their duties are aptly described by the very names they bear.¹ The work of some of them is formal. Their functions are prescribed by the bye-laws and rules of the exchange. While the different committees play an important part in the administration of the exchange machinery, the final control lies with the Board.

Rules and Regulations: One of the main reasons for the organisation of exchanges was the need felt by traders to adopt rules and regulations for preventing illegitimate trade practices in cotton dealings. The exchanges established definite rules to govern marketing in general and futures trading in particular. These rules were designed to insure fair and equitable treatment to all. They were framed to promote uniformity in customs and usages as well to facilitate impartial and speedy adjustment of business disputes. The original rules and regulations have been altered, amended and repealed from time to time to suit changing conditions. Those in use today are therefore substantially different from the original ones. They may be divided for our purposes into two principal headings: (1) disciplinary or prohibitive or restrictive in character and (2) prescribing methods of procedure. Both these divisions refer to the conduct of business, e.g. commission for buying and selling contracts for future delivery is definitely fixed by rule, and members must abide by it. Again, there are rules for arbitration which provide the means of settling disputes, analogous to civil actions at law. The infringement of rules and regulations results in a strict disciplinary action such as, suspension or even expulsion from membership in severe cases. The exchange enforces its own rules of conduct and discipline by a procedure

¹e.g. Arbitration, appeals, rates, rules, information and statistics, membership, finances, building, bye-laws, futures, business conduct, ring, standards, executive, supervisory, warehouse and delivery, classification, adjudication, clearing house, complaints, control, etc.

analogous to that of the criminal courts. The accused member is entitled to a trial before the Board who is the ultimate authority. If guilty, the penalty varies up to the maximum of expulsion according to the nature of the offence.¹ In the case of suspension, the privileges of membership are withheld for a period of time and a member is debarred from membership in the case of expulsion. The former penalty requires a majority vote of the Board, and the latter a two-thirds vote.

6. VARIOUS TYPES OF ORDERS

While trading for clients, members are called upon to execute several kinds of orders.

Market Orders: The usual orders, known as 'market orders,' are to buy or sell certain amounts at the best price obtainable. Unless limited as to time or price they are intended to be executed immediately on receipt and are handled accordingly. A broker receiving the market order to buy will usually bid slightly under the last transaction and continue to increase the price of his bid until the order is executed and vice versa in the case of a selling order. It follows that customers using this type of orders must usually expect to sacrifice a small fraction for the sake of certainty and promptness of execution. Those who are interested in price movements of longer duration consider a fractional variation as incidental and buy or sell at the market rates.

Limited Orders: Any order at a limited price is understood to be good for the day only, e.g. 'Sell one April/May at Rs. 225/-' or 'Buy one April/May at Rs. 200/-'. When trading is active such orders reach the market continuously. An order to buy or sell at a specified price means that the transaction is to be executed, if execution is possible, during the day at the price named.² These orders are usually used to acquire or add to a market position either long or short. They are employed in preference to market orders, for, the price of execution is determined by the trader who would rather like to trade at a certain price level than at

¹The gradation of penalty is that a severe reprimand is supposed to be a lesser penalty than a fine and a fine to be lesser than suspension and suspension to be lesser than expulsion.

²Some of these orders bear the words 'G.T.C.' meaning thereby 'Good till Cancelled'.

an uncertain market figure. This is more so when the market is widely fluctuating.

Stop-Loss-Orders: An order which is terminated with the word 'Stop' is a 'Stop-Loss-Order.' This order does not become effective until the market price is bid at or above the price stipulated if it is a buying order, or in the case of a selling order until the market price is offered at or below the price stipulated. Such orders become the market orders if the fluctuations in the market carry the price to that named in the buying or selling order. The order is executed as soon as the named price is reached as is practicable but not necessarily at that price. The name of this order suggests its use. It is to stop a loss which may be actual or apparent. It is also used to close or reduce a long or short market position. Stop-loss-orders are given by traders who desire to retain their holdings, thus conditionally, if the movement of the market is in their favour. The buyer or seller sets a price at which he wishes his contracts to be closed out, should the rise or decline reach that point. Such orders are not infrequently given in periods when wide and rather rapid fluctuations are taking place.

Switch Orders:¹ These are orders to buy one position of a futures contract and sell another in the same market. Unless the difference between the two positions is stipulated it is understood to be executed at the trading differences.

Straddle Orders:¹ Straddle orders differ from the Switch orders only to the extent that they are orders to buy a stated position of the contract in one market and sell a stated position of the contract in another market. Both these types of orders are used by merchants carrying an unsold stock of cotton. They merely move the hedge from one position of the contract or market to another that may offer more favourable terms. Since the object of both these types of orders is to reverse one's transaction in each position of the contract or market and clip a profit they are availed of by the speculators to take the advantage of temporary disturbance in their price relationship.

¹In India, Switch or Straddle Orders are referred to as 'Badla' business. See also chapter on 'Parity and Badla Operations'.

Conditional Orders: Conditional orders are placed with a broker pending the issue of certain events. The order, for instance, may be to buy or sell upon the crop reports coming to a stipulated figure.

Discretionary Orders: Discretionary orders may be to buy or sell at the time and price the broker thinks best. The idea is that the broker is in a better position to estimate the market than the customer. This gives some latitude to a member executing the order and at the same time more responsibility as to the best obtainable price. Hence, some firms do not prefer to execute such orders and responsible concerns rather refuse to carry them out.

Puts and Calls: There are orders to deal in 'options' known as 'puts and calls' or 'Teji-mandi' transactions. These orders are intended to secure a right or option to buy or sell at a stipulated price, the given position of a futures contract at any time before the due date.

These are the various kinds of orders¹ generally employed by clients in buying or selling futures. Out of these, the most common are the 'market', 'day or limited', 'stop-loss-orders', and 'puts and calls'. Because they are generally well-understood both by the customers and brokers, their use is popular.

7. THE TYPICAL PROCESS

Members work in two capacities, i.e. trading for themselves and/or for clients. In either case, a member has to give an order for execution in the ring to one of his authorised representatives. If the order for buying or selling is to be executed at the market rate, the representative goes to the ring and after ascertaining the rates prevailing executes it. In the case of an order to be executed at a particular limit he remains in the ring and watches the market. As soon as the order is executed, the transaction is noted down in a pocket diary or 'slip book' maintained by the parties concerned. The transaction is then soon confirmed orally. Next morning, the representatives usually meet together and a confirmatory signature is taken.

¹These types of orders are also used in the buying and selling of stocks and shares involving more or less the same procedure in execution on the stock markets.

(a) In the Case of a Member: Suppose, member A wants to buy at market rate 100 bales Broach April/May contract. The order is given to a representative in the ring who finds the rate prevailing at Rs. 200/- and buys at Rs. 200/4.¹ He immediately communicates the purchase to the office where it is entered in the 'business book'. Now when the price goes higher, say, Rs. 210/-, A wants to sell the same 100 bales and gives the order to his representative. The sale is effected at Rs. 210/- and reported to the office for necessary note. The 'business book' provides for all relevant entries with buying on the right hand side and selling on the left hand side of the page; e.g.

Date	Sale		Purchase			Difference	
	Bales	Rate Rs.	Rate Rs.	Bales	Date	Dr. Rs.	Cr. Rs.
4-6-40	100	210/-	200/4	100	1-6-40	—	9/12

(b) In the case of a Non-Member: The procedure for the execution of a non-member's order is the same but the maintenance of accounts differs. In the members' ledger separate accounts are maintained for each client and the business is entered from time to time. When the transaction is closed by the client the difference due from or to him is calculated and entered in the respective columns. The client's business may be based on either margin basis or settlement basis. In the former case, accounts are settled when transactions are closed or when the client wants to settle the account. In the meantime, however, if before the transactions are closed the market goes against the client, the member calls for replenishment of the margin. If the client wants to keep his business standing, he has to comply with it. In case, the client does not comply with the margin call, the member is at liberty to close the transaction when he thinks fit without giving any further notice. When business is done on settlement basis, the member prepares a statement of accounts of his client at the time of the periodical settlement taking the settlement

¹In case of a sale, the realisation is the actual rate prevailing i.e. Rs. 200/- in this particular case. Thus there is generally a difference of As. 4 per candy which is known as 'jobber's turn'. In case of foreign markets this difference is of one point per lb.

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rates as basis and payments are made or received accordingly. If any business is outstanding at that time the settlement rate fixed by the association is applied and the difference is calculated. The outstanding business is then carried forward at the settlement rate.

CHAPTER V

DESCRIPTION OF FUTURES MARKETS

IN the last chapter organisation of futures markets and their common features have been described. This chapter deals with the general description of the different cotton futures markets of the world. The Indian futures markets at Bombay, Karachi, Ahmedabad, Surat and Indore deal wholly in Indian cotton. The American markets at New York, New Orleans and Chicago deal in American cotton. On the Liverpool market, dealings are in American, Egyptian, Indian and British Empire Cotton. Alexandria naturally confines itself largely to Egyptian cotton, whilst at Havre, Bremen and Osaka, the bulk of dealings are in American cotton.

1. INDIA.

The East India Cotton Association: In India, the East India Cotton Association is regarded as the premier cotton futures market, both from the point of view of price quotations and from the standpoint of volume of business put through. This market is at present working under the Bombay Cotton Contracts Act, 1932, which gives it official recognition. The association consists of three different classes of members: (1) full members, (2) associate members and (3) special associate members. A full member has to pay as deposit a sum of Rs. 20,000 if he is a British subject and Rs. 50,000 if a foreign subject. The deposit bears interest at 3% per annum. Each such member has to pay an entrance fee of Rs. 2,500 and an annual subscription of Rs. 200/-. The qualifications for membership are that the applicant should have traded in cotton in Bombay for a period of not less than three years and have a place of business in Bombay. An associate member pays a deposit of Rs. 1,000 if he is a British subject and Rs. 5,000 if a foreign subject. The deposit bears interest at 3% per annum. An associate member has to pay an annual subscription of Rs. 50 and Rs. 100 respectively. The qualifications for this class of membership are that the person

should be actually engaged in the cotton trade and have a place of business in British India. He shall have no vested interest in the association. He is neither entitled to trade in the ring in his own name nor to make use of the clearing house. He has no right to be present at a general meeting nor can he act, under any circumstances, as a director or vote on any panel.¹ The third type of member is called a special associate member. On March 31st 1922 he was a member of the clearing house established by the Cotton Contracts Board or a broker licensed by that Board and applied for membership of the association on or before the date mentioned. He then paid a deposit of Rs. 5,000. On this he gets interest at 3% per annum. He pays an annual subscription of Rs. 200. The difference between the position of an associate member and that of a special associate member is that the former has no right while the latter is entitled to trade in the ring in his own name and to use the clearing house. In other respects both stand on the same footing, that is, they have no vote, no vested interests in the assets of the association, nor are they entitled to be present at a general meeting, to vote on any panel, and under no circumstances, to act as directors. By the end of the official year 1939-40, on 31st August the total membership on the Register of the association was 447 as against 413 in 1938-39.² The membership is comprised of merchants, factory owners, brokers, commission agents, spinners, importers, exporters and speculators. The liability of the members is limited.

The Board of the E.I.C.A. is made up of three panels viz., (1) buyers, (2) sellers, and (3) brokers. The first two panels elect four directors each, and the third six. They form the Board of elected directors. At their first meeting after the annual election the elected members co-opt one director who is called the 'co-opted director' to represent the general body of members on the Board. Five directors are nominated to represent the growers of cotton; three by the Indian Central Cotton Committee from the growers' representatives on that Committee and two by the Government of Bombay. These five directors not having dealings

¹Article No. 12 (ii) the Bye-laws of the E.I.C.A.

²"340 full members, 6 special associate members and 101 associate members". 19th Annual Report of the E.I.C.A.

in futures contracts may or may not be members of the association. As directors, they are entitled to attend and vote at all meetings. But they are not entitled to vote in respect of an appointment of a co-opted director. Thus, in all, the directors on the Board are not more than 20.¹ Each director other than those nominated should be a British subject and an authorised representative of a member belonging to one of the aforesaid panels.

So far as the equipment is concerned, the association owns two buildings, one at Sewree and the other at Kalbadevi. The building at Sewree, known as 'Cotton Green' with warehouses and storage grounds around it, is conveniently situated for business in spot cotton. It contains buyers' rooms, sellers' rooms, a large trading hall and an extensive arbitration room for examining samples of cotton. The building at Kalbadevi is called the 'Cotton Exchange' where trading in futures is carried on.² Kalbadevi is considered to be one of the best centres of trading activities in Bombay, for, there are other markets near by dealing in silver, gold, cotton yarn, seeds, grain, etc. The exchange at Kalbadevi comprises of a basement, a ground-floor with two galleries and six upper floors. The trading ring is located on the ground floor. There are telephone cabins constructed for members on both sides of the ring on the ground floor and in the two galleries, numbering in all 114. The top floor accommodates the clearing house and administrative offices. The remaining five floors contain 113 rooms for members' offices. On the first floor there

¹Article No. 51 of the Articles of Association of the E.I.C.A. provides that there shall not be more than 20 and not more than 12 directors inclusive of the president and vice-president of the association.

²By a long standing practice of many years, futures trading was daily carried out in two separate—midday and afternoon—sessions held at two different places. The midday session invariably took place at the Marwari Bazar (Kalbadevi). In the beginning the afternoon session took place at Colaba under the regime of the Bombay Cotton Trade Association until it was replaced by the Cotton Contracts Committee and later on by the Cotton Contracts Board and since June 1922, under the regime of this association. In 1923, the trade was removed to Sewree and the session was held there. In 1937, a new building was erected at Kalbadevi for futures trading without distinction of midday and afternoon sessions.—Personal Investigation.

is a visitors' gallery on one side of the ring and on the other side a bridge where quotations are posted.

The Bye-laws of the E.I.C.A. prescribe three different kinds of contracts: (1) forward hedge contract, (2) forward delivery contract and (3) ready contract. A forward hedge contract is nothing but a contract in futures. For the purposes of trading in futures there are five hedge contracts and for the crop of any one season not more than four of them mature in any one month. These contracts are: (i) Fully Good Machine Ginned Bengal Contract, (ii) Fully Good Machine Ginned Broach Contract, (iii) Fine Machine Ginned Oomra Contract, (iv) Fully Good Machine ginned Oomra Contract and (v) Good Machine Ginned Southerns Contract.¹ The staple is usually prescribed as "a fair average staple of the season." Though the standards prepared for each differ according to the character of the individual growth, the most usual are "Superfine, Fine, Fully Good, Good, or Good to Fully Good, Fully Good Fair to Good, or Fully Good to Fine." The basis in each contract is as follows:

Contract	Basis
Contract No. (i)	F.G.M.G.. U.P. District
" " (ii)	F.G.M.G. Broach District
" " (iii)	Fine M.G. Berar District
" " (iv)	F.G.M.G. Berar District
" " (v)	Good M.G. Westerns District

The standard basis in each case is fixed on the spot value of cotton constituting the basis of the contract. The spot values of various growths tenderable under each hedge contract are fixed for every working day during the delivery period by the Daily Rates Committee or by a panel of the Appeal Committee subject to a right of appeal to the Board. The tendering difference between the standard and spot values of cotton tenderable under the contract is calculated upon the spot values fixed as above on the last working day previous to the tender. For instance,

¹Though there are five contracts, trading takes place only in the first three and the last two are virtually dead, since, they are neither active nor quoted upon. Ref. to Chapter on 'Hedging'—problems in India. And also ref. to Appendix 'A'.

if cotton is tendered on Wednesday, the tendering difference is calculated upon the spot values fixed on the immediately preceding day—Tuesday. The three main classes; 'Fair, Good and Fine' with the customary interpolations are the pillars of the Bombay system of classification. The value of classes differs according to the growths, e.g. the Fine Oomra standard is cleaner than the Fine Bengal Standard. The standards neither imply a more precise guarantee for staple than 'fair average of the season,' nor are there separate standards for staple. The premiums or discounts on the grades above or below the basic grade are fixed by the Quotation Committee on a commercial basis. The system in vogue is therefore known as the 'Commercial system' of fixing differences. The deliveries are made wholly in Bombay. The months of delivery for Bengal and Fine Oomra contracts are December/January, March, May and July. April/May and July/August are for the Broach contract. July and September are for Fully Good Oomra contract while those for Southerns contract are May/June and August/September. There are thus single as well as double delivery months in vogue on the E.I.C.A. The delivery period runs from the 1st to the 25th day of each single month and for the double months from the 1st day of the first month to the 25th day of the second month.

The unit of a tender against each contract in futures is 50 bales. Tenders are made through the clearing house on the first and the last working days of each delivery period and on every Monday, Wednesday and Friday between these days, holidays and settlement days are being excluded. Futures contracts are subject to periodical settlements through the clearing house and bear interest. As a rule, parties to the contract must be members of the association.

When tenders are made and disputes arise, parties resort to arbitration. A system of blind surveys and appeals has been introduced by the association since October 1937 to replace the old one which was the subject of much criticism. Under the old system the parties used to appoint their own surveyors which is not the case under the present one. Now-a-days, there is a survey committee ap-

pointed annually by the Board. This committee is composed of not more than 25 persons from the members or their authorised representatives. It is divided into five panels of five persons each and the surveyors function through these panels. The day or days on which the members of each panel are to act is determined by the secretary by drawing lots. The surveys are held by persons who are not aware of the names of the disputed parties. The results of the draws are kept secret and surveyors are only informed of their turn to act on the day fixed. This is known as the 'Blind Surveys'. The five members of a panel start their work by a batch of two under the direction of a chairman appointed by them. In case of difference regarding the award, the chairman appoints anyone of the remaining surveyors as an umpire. The award of the surveyors or umpire is subject to a right of appeal to the appeal committee. This committee consists of 12 persons appointed by the Board and is divided into two panels of six persons each by drawing lots. Each of these panels deals with appeals on one day only. No member of the appeal committee can be a member of the survey committee.

The market is formally opened and closed by the ringing of a bell during a business day. As soon as the market opens, trading immediately begins in the ring. There are two sessions maintained by the association; a day session and a night session. The business hours vary according to the seasons in India but are generally fixed at 11-30 a.m. to 5 p.m. and 7-30 p.m. to 8-30 p.m. in Winter, and at 11-30 a.m. to 5-30 p.m. and 8-00 p.m. to 9-30 p.m. in Summer. At the time of the American Bureau report on the cotton crop, the market remains open up to 11 p.m. It is said that in order to have the hours of trading in the Bombay, Liverpool and New York markets synchronised, they maintain a night session in Bombay. The position so far as Liverpool is concerned is that it gets the New York opening at 4 p.m. in the afternoon. Liverpool closes at 5 p.m. and the New York Market goes on. Liverpool is thus under the same conditions as Bombay is with reference to the American markets. Now, if Liverpool members can observe that rule and do their business without having a night session, the Bombay market ought to be

able to do the same.¹ Moreover, the trading hours should not exceed six hours.

The prices are quoted in Rupees and sixteenths of a rupee per candy of 784 lbs. A small change of annas two per candy is equal to Rs. 3/2 per contract. There are no limits on daily price changes but in an emergency, the directors may fix limits. The kinds of transactions permitted to be executed take the forms of outright purchases and sale of futures. The members also buy and sell options known as 'Teji-mandi', either double or single. Orders both for futures and Teji-mandi business come from all parts of India as well as from abroad. The transaction is made openly across the ring. Traders indicate a purchase or sale by throwing their hands out or in, with the words 'Lyo or Dyo' conveying thereby 'take or give'. By way of throwing the hand in, they usually denote purchase and the reverse motion of the hand implies sale. The price and amounts are signalled by fingers. The transactions are confirmed by the contracting parties. The members are supposed to require a margin from their customers, whether an associate member or a non-member. However, the amount of margin is purely a matter of mutual arrangement. There is a system of 'Havalas'² which is freely resorted to in case of a party having any doubt regarding the financial standing of the opposite party. Closed contracts are set off and only open contracts are passed for clearing. The rate of commission chargeable under the rules by a member to his clients is $\frac{1}{2}\%$.³

The association publishes the following statistical reports

- (a) The Bombay Bi-weekly Statistics.
- (b) The Bombay Weekly Statistics and
- (c) The Indian Weekly Statistics.

The first two give the movements of cotton in Bombay whereas the imports and exports of cotton into and from the chief ports of India are given in the third. In addition,

¹"There is no reason why we should not close the night session. We fail to understand why Bombay has night sessions." Evidence recorded to our query.

²"Havalas" means square up the transaction or adjust the books.

³Our enquiry shows that due to cut-throat competition in the trade the rate charged is only $\frac{1}{4}\%$ and at times, as mutually arranged.

the association publishes the Bombay Cotton Annual which contains statistical tables of crops, exports, imports, prices, stocks, consumption and Government notifications. This publication, it seems, has been designed primarily to meet the requirements of all those interested in the production, distribution and consumption of Indian and foreign cottons, yarn and piece-goods.

The Karachi Cotton Association: The organisation and working of the E.I.C.A. have been described above in detail. Nearly all Indian markets work on similar lines and therefore, while dealing with them only such points which require special mention will be explained.

Next in importance, comes the Karachi Cotton Association. This association is a corporation with limited liability of its members. There is no question of its official recognition since there is no Act of the Sind Government governing the working of any cotton association in that province.

The membership is comprised of two classes: (i) Original members and (ii) members. The deposits, admission fees and annual subscriptions to be paid by the members of the two classes and their qualifications are as stated below:

(i) Original Members: Prior to September 1935, an original member had to pay a deposit of Rs. 3,000 bearing interest at 3% per annum and an annual subscription of Rs. 75/- or such other sum not exceeding Rs. 200/- as the Board determines. He must have a place of business in Karachi, and must have applied for membership before the 1st September, 1935.

(ii) Members: If a British subject, a member has to pay a deposit of Rs. 10,000, otherwise Rs. 20,000 bearing interest at 3% per annum and an admission fee of Rs. 500/- and annual subscription of Rs. 75/- or such other sum not exceeding Rs. 200/- as the Board determines. He must have traded in cotton in Karachi for at least one year and he must have an office there.

The total number of members of both the classes registered was 130 on 31st August 1939.¹ The brokers in Kara-

¹Annual Report: 1938-39: The Karachi Cotton Association:
p.19.

chi are not the members of the association. The Board issues annual licences to brokers through whom the members are required to deal with each other.¹ The licence fee is Rs. 25/- and its renewal fee is not less than Rs. 5/- or a sum not exceeding Rs. 50/- as determined by the Board.

So far as the constitution of the Board is concerned, it is composed of two principal interests; viz., the buying side consisting of buyers and exporters, and the selling side of sellers and others. The Board is composed of 17 members (8 buyers/exporters and 9 sellers/others) elected annually by the general body. The Board elects the chairman and vice-chairman from its members.

The association has its own building consisting of a ring, administrative offices and rooms for members. For the purposes of trading in futures there are five hedge contracts, viz., (i) Superfine M.G. Sind Contract, (ii) Fine M.G. Punjab Contract, (iii) Fully Good M.G. Punjab Contract, (iv) Fine M.G. 4-F and (v) Fine M.G. N.T.-289F. The basis for numbers 2, 4 and 5 is "Fine", for number 1 "Superfine" and for number 3 "Fully Good". Standards are prescribed as 'half a class off, pass and one class on'. The staple of 4-F contract should be not less than $\frac{3}{4}$ " and that for N.T. not less than $\frac{7}{8}$ " in length. The months of delivery in all cases are single; viz., December, January, March, May and July. In the case of the Sind contract, November is also actively traded in. 'On' allowances for better staples and 'off' allowances for staples less than $\frac{3}{4}$ " and $\frac{7}{8}$ ", in case of contract numbers 4 and 5, are fixed by the Board from time to time.

In matters of arbitration the Board elects a panel of arbitrators who act as umpires as well. All disputes are referred to the arbitration. Karachi has also introduced the system of Blind surveys and appeals prevailing in Bombay.

The Karachi association does not maintain a night session. Its special feature is that it issues a monthly bulletin and daily market report.

The main points of differences between the two organisations at Bombay and at Karachi are: (a) The E.I.C.A.

¹On 31st August 1939, there were 299 Licensed Brokers on the Registers of the Association.

is officially recognised under the laws of the Provincial Government whereas, the Karachi association is not. (b) The former maintains panels and the Board is elected not jointly but sectionally, while in the latter there are no panels and the Board is elected on a principle of joint electorate system with reservation of seats for buyers and sellers. (c) The character of membership differs in the sense that the first has three classes with comparatively higher amounts of deposits and dues, while the second has only two classes with lower amounts of deposits and dues. The total number of members are 447 and 130 respectively. (d) The position of Karachi Brokers is peculiar since they are regarded as scalpers or at the most, floor traders, as compared to that of Bombay brokers. (e) Both the associations conduct most of the spot business in their respective fields. (f) Karachi does not favour the maintenance of a night session,¹ which Bombay does. (g) Periods of delivery in Karachi are all single while they are both single and double in the case of Bombay.

Shri Mahajan Association, Bombay: Shri Mahajan Association, Bombay, is India's third futures market. This is a body with limited liability of its members but without the stamp of official recognition from the Government of Bombay. The Board consists of 21 members of whom 17 are elected and four are co-opted at every annual general meeting. The members are divided into two classes, viz., ordinary and honorary. An ordinary member has to pay a sum of Rs. 2,501 as admission fee plus the annual dues. Any resident of India interested in the growth and trade of Indian cotton is eligible for membership. The definition, according to the Articles of Association, of an honorary member is that businessmen from any part of India, members of the Provincial Legislature or any other gentleman whose admission as a member is likely to be beneficial to the association shall by a resolution of the Board passed by $\frac{3}{4}$ majority be admitted as an honorary member. He has not to pay admission fee or annual dues. There are 610 members on the register of the Association,² perhaps, the highest number on record in India.

¹Answers to questionnaire.

²Annual Report of the Shri Mahajan Association, Bombay, 1938-39.

The notable points in connection with this institution are: (i) the Unit for trading in futures is 10 bales, (ii) there is only one hedge contract for trading purposes, viz., the Broach contract, (iii) there is no clearing house. They have a system of periodical settlements and on every Saturday the quotation committee fixes prices for that purpose. Members have a right to ask for Havalas should they feel so.

It will be noticed that there are thus two rival associations¹ in Bombay to deal in cotton futures.

The Ahmedabad Cotton Brokers' Association and the Ahmedabad Cotton Exchange: Like Bombay there are two futures markets at Ahmedabad. As the E.I.C.A. is known in common parlance as 'Pakka' and Shri Mahajan Association as 'Kutcha'; the Ahmedabad Cotton Brokers' Association is known in Ahmedabad as 'Pakka' and the Ahmedabad Cotton Exchange as 'Kutcha'. The former is organised entirely by brokers and the latter is formed mainly by traders comparatively small in their financial status. Both are organised and functioning on more or less the same principles. The main points are: (i) smaller unit of 10 bales, (ii) one contract, viz., Broach contract, (iii) no clearing house. There is a periodical system of settlements with Havalas freely resorted to. (iv) The prescribed trading limits for members are 1500 bales in the former case and 500 bales in the latter. Any member trespassing the limit is often called upon to pay Rs. 20/- per candy as margin. (v) There are no panels. The Board consists of 11 to 15 members elected every year. (vi) To become a member of the former association, one has to pay Rs. 2000 as deposit, while the latter organisation charges only Rs. 101/- as admission fee. (vii) The former has its own building having the ring on the ground floor, while the latter has a hired one. (viii) The latter has two managing directors working as the chief executive officers against a secretary and president in the former for the same purpose. (ix) There is no arrangement for actual

¹This is against the common practice and legal enactment all over the world. Also ref. to chapter on 'Regulation'.

delivery being given or taken in Ahmedabad.¹ Both have arranged for such deliveries to be effected in Bombay.

The Surat Cotton Merchants' Association: There is a cotton futures market in Surat too. The lines of organisation are mostly copied from those of the Bombay Mahajan Association. Hence, the working is similar to that of the parent body. The only point worthy of note is that the Surat association has a unit of 5 bales only,² perhaps, the smallest in the world's cotton futures markets.

The Indore Cotton Committee: The cotton futures trading at Indore is conducted under the auspices of the Indore Cotton Committee. The operators have to pay to the Indore State a tax of Rs. 5/- per every 100 bales bought and sold. There is neither a fixed unit nor are there any fixed hours of business. There is only one contract, namely, Broach for trading in futures. Popularity of this market lies in the huge business put in by way of Teji-mandi which at times affects even the price level on the E.I.C.A.³

2. THE UNITED STATES OF AMERICA.

The New York Cotton Exchange: The New York Cotton Exchange is an incorporated body working under a special Act of the State of New York. It has a Board of managers consisting of 18 members elected every year.⁴ A member pays an entrance fee of 1000 dollars and an annual subscription determined by the Board. The exchange has a limited number of members, 450. A member has to hold at least one 'seat'.⁵

The exchange has a building having 20 floors, of which the 19th floor is mainly a large hall known as the 'trading floor'. It contains the ring, telephone booths, telegraphic equipment, black-boards and a gallery. Trading hours are from 10 a.m. to 3 p.m. on Mondays to Fridays and from 10 a.m. to 12 noon on Saturdays. The opening and closing are announced by the striking of a gong in the ring. There is a system known as a 'call'. An officer of the

¹In view of this, the exchanges in Ahmedabad may be regarded as 'gambling dens'.

²Articles of the Surat Cotton Merchants' Association.

³Personal talk.

⁴Bye-laws and rules of the New York Cotton Exchange.

⁵A few members hold more than one seat.

exchange conducts the calls of each delivery month in turn and establishes the price level for all positions of a futures contract. At the end of a call, trading becomes open. Other calls take place at 12-15 and 2-15 p.m. respectively. The exchange has been in continuous operation since its inception except for temporary closings at the outbreak of the war in 1914 and during the bank moratorium in 1933.

There is one uniform contract called 'Middling'. Its unit is 50,000 lbs. in about 100 square bales, gross weight. It has a minimum staple length of $\frac{7}{8}$ " with the 'White middling upland' as the basis. Delivery may be made at one of the specified places at the seller's option.¹ In effecting delivery a notice of five business days is required to be given by the seller. Every contract calls for delivery either in the current month or in any of the succeeding eleven months. The active months are January, March, May, July, October and December and the trading is concentrated only in these six months. The price is quoted in cents and hundredths of a cent per pound. Each hundredth part is known as a 'point' and is equal to 5 dollars on a 100 bales contract. The exchange rules provide that transactions shall not be made in one day at more than 200 points per pound above or below the closing prices of the previous day nor at a greater range in prices than 200 points a pound above the lowest or below the highest of the day.

The members are required to pay to the clearing house margin money for protection from loss on outstanding contracts. There are two kinds of margins (1) original and (2) variation. Original margins are paid to cover ordinary fluctuations of prices during the course of a day. Variation margins are additional payments made subsequently, when and if called for by the clearing house, to cover broader fluctuations in times of unusual price changes. The contract is subjected to a system known as 'daily settlement' as opposed to one of periodical settlement in Liverpool and Bombay. The discounts for lower and premiums for higher qualities than the basis are pro-

¹Delivery on New York futures contract may be made at New York, Norfolk, Charleston, Savannah, Mobile, New Orleans, Houston and Galveston.

vided for. The difference is based on the prices prevailing in the designated Southerns spot markets. The differences are averaged and used as the basis for calculation. The exchange applies the full average premiums and discounts for grades. It applies only 60% of the average premiums for cotton of 15/16" and full inch staple. It does not allow any further premium for cotton of more than one inch staple. All cotton delivered on futures is classed by expert classers of the U.S. Department of Agriculture. The Department issues a certificate for each bale giving particulars regarding the grade, the staple and whether or not the cotton can be delivered on the futures contract. Hence, the words "deliverable qualities" and "certificated stocks" are in common parlance in America.

The brokerage to non-members residing in the U.S.A. and Canada is 15.00 dollars for 100 bales bought or sold while that for those residing outside the U.S. and Canada it is 17.50 dollars.¹ For members it is half of the said amounts. The contracts in futures are subject to "U.S. Cotton Futures Act." We may add that the exchange maintains a statistical service and publishes a year book called "New York Cotton Exchange Year Book".

The New Orleans Cotton Exchange: The New Orleans Cotton Exchange is a Corporation domiciled in the city of New Orleans and chartered under the laws of Louisiana. It has a capital of 1,00,000 dollars divided into 500 shares at 200 dollars each. A member must hold at least one share. He has to pay the initiation fee of 500 dollars and annual dues of 150 dollars. Besides, he may be called upon to pay other fees and taxes. Only a person legally of age, good character, and commercial standing, is qualified for membership. In addition, the exchange accepts visiting members who pay dues but do no trading on the floor. The Board of Directors consists of 17 members including a president, a vice-president and a treasurer who are elected annually.

In the building owned by the exchange the trading room is on the second floor. There are two units of trading, one of 100 bales, as in New York, and the other, what is

¹Bye-laws and rules of the New York Cotton Exchange.

known as a 'job lot', of 50 bales. Two separate rings are maintained for the two separate units. Other facilities are the same as those in New York and the working is essentially conducted in a similar manner. The points of difference between the two are: (1) New Orleans opens and closes one hour earlier than New York due to time difference. (2) Each session opens with a call as at New York but there are no subsequent calls during the day. (3) Contracts for future deliveries can be made as far ahead as the parties wish to enter which is not done in New York. (4) Commission for domestic non-member is 12.50 dollars for buying or selling as opposed to 15 dollars in New York. (5) New Orleans contract permits delivery at only 3 points as against 8 points on the New York contract. (6) In New Orleans, the cotton of 15/16" staple fetches the full premium and in the case of full inch staple 75% of the premium is received by the tenderer as compared to 60% in both the cases in New York.

The Chicago Board of Trade: On the floor of the Chicago Board of Trade, futures trading is conducted in many commodities including cotton. Business in cotton is carried on around a trading post, there being no separate ring for the purpose. The Chicago market is in almost all other respects rather organised on the same lines as of New Orleans. The points of difference are that there is only one contract of 50 bales as opposed to two at New Orleans and the contract is based on the delivery of bales compressed to a high density as against the standard density in New York or New Orleans. If a seller, therefore, tenders uncompressed or standard density bales in the fulfilment of the Chicago contract, the price is subject to certain adjustments.¹

3. EUROPE.

The Liverpool Cotton Association: The largest and most important cotton futures market in Europe is the Liverpool Cotton Association. The association is a corporation working under a special charter received from the Parliament of Great Britain. The capital of the association is £60,000 divided into 600 shares of £100 each and the shareholders have power to increase it.

¹Opposite is the case in New Orleans or New York where compressed or high density bales are subject to price adjustments.

There are two types of memberships: (i) Full member and (ii) Associate Member. A full member must hold one share and should be elected by the general body and approved by the Board. In the case of a non-British subject, there are certain restrictions.¹ A member has to pay an entrance fee of £500 and an annual subscription as fixed from time to time. The associate members are divided into eight classes running from A to H and are subject to annual election. The annual subscription payable by each of these sub-classes is determined at the general meeting.

The Board of directors consists of not more than 19 persons including a president, a vice-president, a treasurer and not less than 10, nor more than 13, Ordinary directors as well as not less than one nor more than 3 Associate directors. At every annual meeting the president, vice-president, treasurer and one-third of the Ordinary directors and one Associate director retire.

Like New York, this market has been in continuous operation since its inception except for brief interruptions due to war or other disturbances. It has its own building equipped with all the necessary facilities. In the trading hall, there are three rings; one large and two small for the various types of cotton dealt with in the market. The large ring is for American Cotton. Of the two small rings, one is for Egyptian Cotton and the other is jointly for Empire, Miscellaneous and Indian Cotton. The hours of trading begin from 10 a.m. to 4 p.m. on Mondays to Fridays, and from 10 a.m. to 12 noon on Saturdays. It is formally opened and closed by the ringing of a bell as in India, and trading in any position immediately begins. There are no 'calls' in Liverpool. All contracts for the purchase and sale of futures provide for the delivery of cotton within one year and one month after the month in which the contract is made. The positions of a futures contract most actively traded in are January, March, May, July, October and December. The Liverpool American contract, as in the case of a contract on American exchanges, has 'Middling' as its basis with the "universal standards" for grade. But the two contracts differ in respect of staple length, since, the former specifies 'fair staple'

¹Articles of Association of the Liverpool Cotton Association:
Article No. 3.

as in India, and is subject to the Liverpool Standard as against the $\frac{7}{8}$ " staple in the latter case with the U.S. Govt. Standard. The contract unit in Liverpool is for 100 bales of 48,000 pounds net as against 50,000 lbs. gross weight in New York. The transaction as in futures markets in India and America is made openly across the ring and by the use of signs. Prices are quoted in pence and hundredths of a penny per lb. One point is the minimum fluctuation which amounts to £2 per contract of 100 bales. Daily price changes are limited to 25 points only. The contract is on 'Settlement terms' and subject to weekly payments. It is interest bearing, as in India; this is not the case in the U.S.A. Apart from the outright transactions, options known as 'put and call' either double or single are availed of by the traders. Margins are not required as in India, as opposed to the practice available in America. This is purely a matter of private arrangements both with regard to a member and a non-member client. The delivery, without notice, is made through the clearing house before noon on the first and last business days of a month or on any Tuesday and Friday in such a month. The additions or deductions for quality are settled by arbitration, the seller appointing one arbitrator and the buyer another. There are appeals and super-appeals in case of disputes. In the event of cotton of better staple than 1 3/16" being tendered, the seller makes to the buyer an allowance of 20% of the excess value of such staple cotton over 1 3/16". Otherwise, full spot market premium for cotton on all staple measuring up to and including 1 3/16" is allowed. Like the American exchanges, the Liverpool association allows full spot market differences for grade.

With regard to the Egyptian cotton, there are two contracts in Liverpool; (1) Sakel and (2) Uppers. The Sakel contract is based on 'Sakellaridis' grown in Egypt or Sudan (Giza No. 7), and the Uppers contract on 'Upper and/or similar varieties of cotton grown in Egypt including Pillion cotton.' The contract unit in each case is 24,000 lbs. net or 33 bales. There are thirteen trading months under the Egyptian contracts. Full allowance is made in the case of a tender for both grade and staple values except that the allowance is limited to 3d. per lb. or the value of Good Sakel whichever is higher on the day of the tender.

Referring to the 'Empire and Miscellaneous' contract it provides for the delivery of cotton grown in any country which is "at least equal in value to the Universal Standard for Low Middling American cotton, but not below the grade of that standard and of not less than Fair Staple etc. or Punjab/American cotton which is not Fine in grade and not less than Good Staple."¹ This contract covers American, African, Australian, South and Central American, Mexican and Russian Cotton, excluding the varieties included in Sakel and Uppers contracts. The unit of the contract is 24,000 lbs. but the number of bales varies according to the weight of the growths delivered.

Finally, there is a special contract for the East Indian Cotton. It is based on the 'Superfine C.P. Oomra No. 1' Liverpool Standard, with staple not less than of Oomra No. 1. Thus only the longer stapled variety of Indian cotton such as Broach, Suratee, Navasari, Punjab/American, Cambodia, Tinnevelly, etc., can be tendered against this contract. The contract unit is 39,000 lbs. normally, meaning 100 bales, the weight of an Indian bale being 392 lbs. net.

The association collects and publishes many data as in the case of Indian and American exchanges. These data relate to the home and other markets as well as to significant facts outside the markets. Most of the information collected is published in the form of notices on the Bulletin board. In addition, a daily report, a weekly circular giving detailed information in both summary and comparative forms and an annual report in the nature of a yearly summary are the publications of the association.

The Havre Exchange: The Havre Bourse (exchange) provides a large trading room for dealing in cotton futures. The peculiarity of trading on this market is that the traders do not openly make their bids and offers but negotiate individually in private talks. There are no rings but pillars around which trading activities in various commodities including cotton are carried on. The membership consists of brokers only, who work on a commission basis and are called 'futures brokers'.² These brokers

¹Ibid.

²There are some brokers who are sworn in and known as "Sworn brokers" for service as experts in courts.

assemble around the cotton pillar at about 10 a.m. and at 10-15 a.m. get together in a special room where an opening call is held. Another call is held at 4 p.m. Prices established on the first and second calls are posted on a black board in the trading room. One of the brokers elected to be the president for a week conducts the call. Prices are quoted in terms of Francs and centimes per 50 Kilos. The trading terminates at about 5 p.m. A contract unit is 11,000 Kilos or 24,250 lbs., net weight in about 50 bales. Contracts are made for delivery in the current month and in any of the succeeding eleven months. The active months are January, March, May, July, October and December. Only in American cotton, trading in futures takes place and the contract is a basis 'Middling' one, the U.S. Govt. Standard. The staple length prescribed is 23.5 millimeters, Havre Standard, equivalent to 29/32". Though the basic grade of the contract is similar to that of the U.S.A. or Liverpool contract, it is slightly better in staple. The cotton tendered is classed for grade and staple by an arbitration committee of the Bourse. No premium is allowed for additional staple length but premiums or discounts are allowed for grades above or below Middling. These differences are fixed in advance at general meetings held four times a year; the periods being March, June, September and December. Here is an example of a system known as 'fixed differences' as opposed to that of 'Commercial differences' available in India, the U.S.A. and England. Each contract must be covered by an ordinary and if necessary by a variation margin deposited with the clearing house. There are no limits on the daily price changes. The commissions are based on mutual arrangements.

The Bremen Cotton Exchange: The Bremen Cotton Exchange has its own building with all necessary facilities. Contrary to the practice existing at Havre, trading is conducted openly around the ring. There are two trading sessions in a day: (i) from 11-15 a.m. to 12-30 p.m. and (ii) from 4-20 p.m. to 5-30 p.m. The business officially opens and closes by the ringing of a bell. There are four calls daily conducted at the opening and closing of the two sessions. As at Havre, only American cotton is dealt in and the unit is of 50 bales. The Bremen contract has the Middling as a basis the U.S. Govt. Standard, with 28 milli-

meter staple, Bremen Standard equivalent to 15/16". Thus, the Bremen contract has the same grade but its basic description is of a longer staple than that in Liverpool, the U.S.A. or Havre. This contract unlike that at other markets permits the delivery of cotton of shorter staple than the basic staple length. The seller in that case has to allow the buyer a discount for the staple deficiency. On deliveries of cotton longer than the basic length, up to and including 28/29 millimeter staple, premiums are allowed equal to 60% of the prevailing spot market differences for staple as officially computed by the exchange. On deliveries of cotton longer than 28/29 millimeter no additional premiums are allowed over and above that applicable to 28/29 millimeter. Differences are established every week by a valuation Committee of the exchange. Deliveries are made at Bremen, Bremerhavey or Westermunde. Prices are quoted in cents and hundredths of a cent per pound with the smallest change equal to 2.50 dollars on a contract of 50 bales. There are no limits on the daily price fluctuations. The contract is subject to daily clearing and settlements. Every contract must be covered by a margin of 150 dollars per contract deposited with the clearing house. The commission charged is 25 dollars per 50 bales and varies with the price. The exchange engages paid classers for the purpose of classing the cotton submitted for delivery and arbitration. The names of the parties concerned are not disclosed to these classers. The cotton classed once for delivery on futures need not be re-classed under ordinary circumstances.

4. JAPAN

The Sampin Exchange: In Japan, trading in cotton futures is conducted under the auspices of the Sampin Exchange at Osaka. There are no rings but transactions are made openly on the floor. Trading is mostly concentrated at calls. There are five calls for cotton conducted by the exchange employees at brief intervals during a trading day. The contract is a 'strict middling' contract, the U.S. Govt. Standard. It may be emphasised that the basic grade is higher than that of either the American or European markets and the Middling is the lowest grade deliverable. The staple length prescribed is $\frac{7}{8}$ ", the U.S. Govt. Standard as is the case with the contract on the

American markets. Premiums and discounts are allowed for grade. As to staple, premiums are allowed up to 15/16". There is a system of "Fixed differences". Each month the Board fixes the differences on the recommendation of a committee on differences. The exchange maintains its own inspectors to class the cotton and to certify it for delivery. This classed and certified cotton is re-classed twice a year; April and October. There are 12 Appeal Committees. A disputant may resort to any one of such committees. Trading is confined to deliveries in the current month and the succeeding six months. The contract calls for the delivery of 36 piculs net weight, equivalent to 4,800 lbs. Delivery can be made either at Osaka or Kobe.

5. EGYPT.

The Alexandria Exchange: In Egypt, the futures trading in cotton is carried on at Alexandria. The futures market is conducted under the auspices of the "Commission de la Bourse de Marchandises." The trading opens in the morning at 10 a.m. and closes at 1-5 p.m. There are three contracts (i) Sakel—long staple and (ii) Ashmouni—short staple and (iii) Giza No. 7. The basis is "Fully Good Fair". The grades ranging from "Good, Fair to Good" can be tendered against the fulfilment of futures contracts. On an Ashmouni contract delivery of brown and pilion cotton is admitted¹ and the contract therefore is subject to price allowances fixed by a Special Committee. This committee is elected by the members and meets on the day preceding each delivery date of the contract to fix the price differences. Deliveries are made in the warehouses located in the district of Alexandria. Any dispute arising in connection with the delivery on futures is submitted to the Arbitration Committee consisting of 30 members. Three of these members whose names are drawn by lots by the president are asked to examine the cotton. They do not know to whom the cotton belongs. If the result of arbitration is not accepted by one of the parties, there is an appeal committee of at least five members whose decision is final. Every care is taken that the members of this Committee are not aware of the parties in dispute.

¹Some information about the Egyptian cotton markets: 1926,
G. D. Economou & Co.

Comparative Statement of the Principal features

Name of the market.	Trading Hours.	Calls.	Ses-sions	Contracts No.	Unit	Basis Grade	Basis Staple
East India Cotton Association	11.30 a.m. to 5.30 p.m. & 7.30 p.m. to 9.00 p.m.	Nil	Day and night	5	50 bales	F.G.M.G. etc.	'Fair average of the season'.
Karachi Cotton Association	11.00 a.m. to 5.30 p.m.	Nil	Day	5	50 bales	Fine M.G. etc.	do. and fixed
New York Cotton Exchange	10.00 a.m. to 3.00 p.m.	3	Day	1	100 bales	'White Middling Upland'.	7/8"
New Orleans Cotton Exchange	9.00 a.m. to 2.00 p.m.	1	Day	1	50 and 100 bales	do.	do.
Chicago Board of Trade	9.00 a.m. to 2.00 p.m.	1	Day	1	50 bales	do.	do.
Liverpool Cotton Association	10.00 a.m. to 4.00 p.m.	Nil	Day	5	100 bales and varying	do. and varying	'Fair average of the season'.
Havre Exchange	10.00 a.m. to 5.00 p.m.	2	Day	1	50 bales	'Middling'	29 32"
Bremen Cotton Exchange	11.15 a.m. to 12.30 p.m. & 4.20 p.m. to 5.30 p.m.	4	Day	1	50 bales	'Middling'	15 16"
Alexandria Exchange	10.00 a.m. to 1.05 p.m.	Nil	Day	3	250 Kantars F.G. Fair	Medium	
Sampin Exchange		5	Day	1	36 Piculs	'Strict Middling'	7 8"

of the Leading Cotton futures markets of the World.

Price quotations	Positions	Settlement terms			Delivery points	Fixing of differences	Brokerage Member	Mode of arbitration
		Clearing	Margin	Int.		Member	Non-Member	
Rs. and As. per candy	Single and double	Fort* nightly	Mutual	Int. bearing	1	Commercial System	By arrangement	Blind
do.	Single	do.	do.	do.	1	do.	do.	do.
Cent & Cent-points per lb.	do.	Daily	Original & variation	Nil	8	do.	\$15.00 \$17.50	do.
do.	do.	do.	do.	do.	3	do.	\$12.50 \$15.00	do.
do.	do.	do.	do.	do.	3	do.	do.	do.
Pence and pence points per lb.	do.	Weekly	Mutual	Int. bearing	1	do.	Varying for different contracts	do.
Francs & centimes per Kilos	do.	Daily	Original & variation	Nil	1	Fixed system	Mutual arrangement	do.
Cents and cent points per lb.	do.	do.	Ordinary	Nil	3	Commercial system with the price	\$25.00 & varying price	Blind
Egyptian dollar per Kantar	do.	Weekly	Mutual	Nil	Warehouses at Alexandria Dist.	do.	Varies with price	do.
Yens per picul	do.		do.	Nil	2	Fixed system	Mutual arrangements	Ordinary

* Weekly since September, 1940.

Thus, there is a blind system of surveys and appeals in Egypt. The months of delivery for the first contract are November, January, March, May and July and those for the others are October, December, February, April, June and August. The active months are November, January and March as well as October, December and February. Prices are quoted in terms of Egyptian dollars per Kantar, equivalent to 100 lbs. The trading unit is 250 Kantars of about 37 local bales or 50 American bales. The commission varies with the price.

6. WORLD MARKETS COMPARED.

The points of similarities and differences in the operation and organisation of the various markets of cotton futures in the World have been described while dealing with them individually. In order to give a general idea at a glance a table showing the summary contrast and comparison is given on pages 82-83. It may be added that in the second part some of these aspects have been discussed with a view to consider their applicability to India.

CHAPTER VI.

CLEARING: METHODS AND MACHINERY

BEFORE completing this part of the thesis, the methods and machinery of clearing a futures contract must be described, since, they form a part and parcel of the organisation of a futures market. For this purpose, we need to review the old methods of clearing and their utility to the trader, the establishment of modern clearing houses and their functions.

1. ORIGIN AND GROWTH OF CLEARING SYSTEMS.

In the early days of futures trading, all contracts used to run to maturity. It was thought that contracts could only be fulfilled by actual delivery between the two parties.

Evolution: With its increasing use both for hedging and speculative purposes, the contract did not remain with the original buyer till maturity but was sold and resold passing through a number of hands before the date of delivery. A speculative trader as well as a hedger would ordinarily buy different quantities at one price and sell at another with the idea of making profit or protecting his spot transactions. Each of the parties who held the contract for a while during the period of its currency would be due either to pay or receive the difference meaning that he had lost or gained on the whole. But none of these differences would be payable until the expiry of the period to which the contract referred. It was therefore considered a lengthy, tedious and unsatisfactory process. It would at times tend to make the situation dangerous, because, an operator dealing in futures might carry on for a number of months losing heavily without being detected. On the due date, he might be unable to pay the difference or accept delivery as the final settlement. Hence, some method for the settlement of the balances of profit and loss involved in the myriad of transactions became necessary.

Methods of Clearing: In view of this, different methods of clearing a futures contract were devised and practised before the establishment of a common clearing house was conceived of. Traders were accustomed to settle their transactions either by directly matching them with one another or by ringing them out.

(a) **Direct Settlement:** Possibly the first system of clearing used was known as a 'Direct Settlement', meaning thereby the setting off of contracts to buy at a certain price at a certain time, against similar contracts to sell at the same or any other time, at the same or a varying price, and paying the difference in cash at the end. This kind of settlement would occur when each of two members had purchased from and sold the same contract to the other. For instance, let us assume that on September 5th, A sold to B April/May contract for 100 bales at Rs. 200/- per candy and after some time, say, on September 10th, B sold to A the same contract at Rs. 225/-. Instead of waiting till maturity and then delivering cotton to each other they would settle directly on or after their contracts had been closed. In the above case, this would occur on the 10th of September, when by paying and receiving the difference of Rs. 25/- per candy A and B would settle their transactions. It helped them to delete the dead account from their books and avoid making or taking deliveries to each other. A pre-requisite of a direct settlement was that A must have bought and sold a futures contract for the same period to B and B in turn must have made counter transactions of the same contract with A. Direct settlement could also be effected in cases where quantity purchased or sold varied. A great drawback of this method was found in its restrictive nature in the sense that only two parties could make use of it.

(b) **Pass-out or transfer:** Another method employed for making settlements was commonly known as "Pass-out or transfer." A pass-out was the substitution of another contract for the original one. This was also known as 'offset'. The original seller might purchase at any price, before final delivery, a similar contract from another and substitute such purchased contract for his original sale, e.g. by this method A could pass out or transfer what he bought from B and sold to C. Since A had both bought

and sold, he need not wait longer for effecting a settlement provided he could arrange and make it mutually agreeable to B and C. Under this method, it did not matter if the prices between A, B and C did not coincide, because A could pay off or receive the difference in cash by adjusting the original prices or taking some common basis. This would save a lot of time of all concerned. But the method was found restrictive in its scope by way of limiting the number of parties that could mutually agree and adjust. In this method, difficulty would arise in a case when B might not accept C for reasons best known to him, and A could not fall out. So another plan of settling contracts was devised.

(c) **Ring Settlement:** An improved method was found in what was known as a 'ring settlement'. Ring settlement was reached by comparing books of the members buying and selling in the ring. A series of transactions were picked out which could be set against each other so that closed contracts might be eliminated. This system operated on the same principle as the direct settlement, except that it took more than two parties to make a ring. If A, B and C were brought together and transactions reduced to some common price basis, each could pay the other the difference between the ring price¹ and the original trading price. For instance, if A had sold to B, B to C, C to D, D to E, E to F and F to A and the facts were known, transactions could be cancelled and differences paid as shown in the following statement:

Purchase**Sale****A**

From F at Rs. 200: 100 bales To B at Rs. 205: 100 bales
To be claimed Rs. 250

B

From A at Rs. 205: 100 bales To C at Rs. 203: 100 bales
To be paid Rs. 100

C

From B at Rs. 203: 100 bales To D at Rs. 210: 100 bales
To be claimed Rs. 350

¹"The price for 'ring' was 10.30 a.m. price as published by the exchange and printed on the tape every day." W. H. Hubbard: Cotton and the Cotton Market: p.263.

D

From C at Rs. 210: 100 bales To E at Rs. 206: 100 bales
 To be paid Rs. 200

E

From D at Rs. 206: 100 bales To F at Rs. 206: 100 bales

F

From E at Rs. 206: 100 bales To A at Rs. 200: 100 bales
 To be paid Rs. 300

From the above table it will be noticed that under any circumstances, the losses would equal gains when the accounts of all the members of a ring are considered. Thus, the method of clearing contracts which could not be offset by direct settlement or pass-out was accomplished through the formation of a ring. What the ring settlement system implied was that those having net losses should pay to those having net profits. The ring might contain a large number of dealers, and balances might be settled by means of a few payments involving small amounts. In this way a number of transactions could be cleared. It gave some advantages over the direct or pass-out method of settlement in the sense that a number of traders could wipe out their dead accounts long before maturity of the futures contract. In addition to this, they could effect an enormous saving in the financial requirements of a particular party which might otherwise be needed to settle the transactions. However, the method was not free from shortcomings. The principal limitations to the ring settlement system were: (1) the proportion of contracts liquidated by this method was small compared to the volume of outstanding contracts. (2) The quantity which could be rung out was limited by the smallest amount bought and sold by any party in the ring. (3) The last buyer must have sold to none but the first seller to complete the ring. (4) The process of determining the presence of a ring was not an easy task. If one of the parties to a ring was absent, it would be difficult to form it. All parties must be willing to co-operate and ready to compare their books. Thus, it is obvious that even the ringing out method of clearing was found both cumbersome and inadequate.

Taking all these old methods of clearing a futures contract, it may be noted that they could be put into practice without the aid of a clearing house. They were much

more simple than those of the present day. These methods were voluntary in nature and a mutual agreement or arrangement for their operation was all that was necessary. While they were haphazard and incomplete they were a vast improvement over the old system of waiting till maturity.

2. DEVISING OF A CLEARING MACHINERY

As trading on the futures markets assumed an ever-increasing magnitude, the necessity of a clearing house was realised. As the volume of trade increased and the number of traders multiplied, these methods were rendered less and less satisfactory. The principle of a clearing house then employed by the banks in their relation with each other naturally suggested itself as a solution of the troubles.

Liverpool: For the rapid settlement of transactions in futures between members of the Liverpool cotton market, a system of working known as 'cotton clearing house' was first devised in the year 1876 in Liverpool. It enabled the diverse transactions outstanding between individuals to be offset as far as possible and a final settlement produced with a minimum payment of cash by one to the other. In 1878, a cotton bank was established to do away with cash payments and to afford facilities for the settlement of transactions on the spot market. The next step was the introduction of periodical settlements. There was a strong opposition from the trade against this new device. People were afraid it would interfere with the course of legitimate trade. They accordingly voted against every settlement scheme brought forward. The objections against the reform, however, lost influence with the general body of merchants and brokers, after the shocking state of affairs disclosed by the 'Ranger failure' at the end of 1882. Those who objected to the system began to realise that it did not come in their way at all. In 1882, a section of the brokers formed a settlement association which was amalgamated with the Liverpool cotton association in 1884 and the system became universal.¹

New York: Ring settlements and other methods became intolerably objectionable in New York. Therefore, the

¹S. J. Chapman: The Lancashire Cotton Industry, p.132.

exchange formed a clearing organisation in 1896. They made arrangements with the Corn Exchange Bank to run a clearing house for the money involved in all settlements.¹ As only the monetary differences were cleared and not the actual commodity by this arrangement the system was regarded as imperfect. Hence, there was a widespread demand for innovation in this direction. A committee was appointed in 1914 which worked out the details and a better system was inaugurated in the spring of 1915 under the style of the 'New York Cotton Exchange Clearing Association.'

Bombay: When England and America adopted the complete system of clearing, futures trading in India still lagged behind in this particular aspect. Conditions in Bombay were primitive when there was no clearing house. Generally, there were two clearings in a year, negotiated in terms of cash only.² In the absence of the modern methods of clearing the risk was often carried by the parties six months and sometimes even longer. Though the clearing house scheme for the settlement of contracts for future delivery was put on a working basis by the Bombay Cotton Trade Association in the beginning of the year 1888, it was practically never tested.³ The Bombay Cotton Exchange had as one of their aims and objects to establish, regulate and maintain a clearing house.⁴ But this was also never put into practice. In 1917, the market was involved in a crisis. The long period of principal settlements mainly rendered possible the occurrence of this crisis.⁵ The remoteness in the time of settlement led speculation to an extent which was not necessarily correlated in any way to the resources of the parties. It was generally felt that the institution of a settlement of differences at frequent periods should go a long way in removing the risk and establishing sound as well as healthy conditions in the Bombay market. But a number of brokers and merchants, particularly those of the more old fashioned type

¹Year Book: New York Cotton Exchange, 1927-28, p.23.

²The pre-ponderate volume of business was in the April/May contract.—Personal investigation.

³Report of the Bombay Chamber of Commerce: 1888, p.60.

⁴Memorandum of Association of the Bombay Cotton Exchange, 1893, p.3(o).

⁵Personal discussion.

regarded with abhorrence any movement designed to introduce new methods into the cotton market. Much the same kind of reasoning actuated other opponents of the reform who maintained that the adoption of settlements would increase and intensify the bad features such as corners in the market. One plausible argument urged against the introduction of a clearing house in this country was that merchants in India, compared with those in various places in Europe and America where clearing houses existed, were poor. It was pointed out to these people that so long as their business was genuine, it could still be conducted with better safety and more security under the systems of a clearing house and periodical settlements.¹ In the meantime, the Mackenna Committee appointed by the Government of India in 1917 gave due weight to the system of clearings and recommended the establishment of a complete system of a cotton clearing house for settlements, at least weekly.² Accordingly a complete system of a clearing house with periodical settlements was introduced in 1918, that is, 43 years after the starting in 1875 of the first association to regulate the cotton trade of Bombay.

Karachi: There was no clearing house in Karachi and the trade followed the old methods of settlement.³ It was only during 1929, that the Karachi joint cotton committee undertook to clear the delivery orders on behalf of members. The committee then considered a proposal for undertaking clearing of payments arising out of periodical settlement of contracts on the same lines as in Bombay. In 1930, they took steps towards the introduction of periodical settlements.⁴ Still they have no complete system of a modern clearing house. In 1933, they established a modern clearing house which functions at present under the auspices of the Karachi Cotton Association.

The position in the rest of the Indian Cotton futures markets is that though their Articles of Association provide

¹Sir Purshotamdas Thakurdas: Bombay Legislative Council Debates: 1918, p.980.

²Report of the Indian Cotton Committee, 1919, p.210.

³"The settlement rates were fixed by the Panchayat".—Personal investigation.

⁴Report of the Karachi Joint Cotton Committee for the periods 1927-31.

for the establishment of a clearing house, at present none of them has one. They follow old methods of clearing. A system of periodical settlement is officially recognised by the respective bodies. An instance of one market representing the rest may be taken. Members of Shri Mahajan Association at Bombay settle their contracts on every Monday at the price fixed by the committee on the preceding Saturday and pay or receive the differences. This presents a very interesting scene to witness. They form the rings and ring out their transactions first by checking each other's list, then by paying or receiving differences. For this purpose, they have to accommodate by keeping cash on hand or giving a bearer's cheque on any first class bank for all the debit items though it may be that they have to receive a certain sum from someone and pay a certain amount to someone else. The authorities in case of default do what they can for the loss, if any, sustained by the member.

3. CLEARING HOUSE

Instead of forming rings or making direct settlements all transactions in the leading markets of the world are now passed through the clearing house as an intermediary. Members no longer deal directly with one another after the transactions across the ring have been made and contract slips exchanged or confirmed. Instead, they deal with the clearing house.

Its Importance: Since the leading futures markets have grown to huge dimensions and products are sold again and again, they have introduced a complete machinery of a clearing house through which purchases and sales by the members are cancelled against one another as far as possible and only differences are paid and received or deliveries effected. Without a clearing house, it is impossible to carry out such a large number of transactions. It acts as a central clearing agency for members and becomes a central office where each member can settle his transactions and clear the differences caused by changes in prices. With regard to utility and economic importance, it may be said that the adoption is a proof of its use. Its utility to the trade lies in saving time, trouble, and energy as well as limiting the risks. Today, a clearing house is re-

garded as the hub of financial dealings between members.¹ Debits or credits due to and from many parties are paid or received from the clearing house by a member. All members deal likewise with this institution and the net result is that each firm settles its differences with the other separately for many small balances. Its real importance lies in the convenience it gives in facilitating the handling of the immense volume of transactions on the exchange and in securing to the trade an efficient, economical and safe method of keeping all futures contracts cleared.

Purpose: In order to facilitate the settlement of contracts, simplify the passing over of delivery and lessen the financial risks, a clearing house has been established. It also affords facilities for the offset of transactions and settling of differences. For this purpose, it has been provided that all clearing members would file their reports or statements showing the net long or short position with the clearing house which has a right to refuse or accept any contract for clearance. Upon acceptance, all contracts made between members are deemed to have been assumed by the clearing house and its position becomes that of a seller to every buyer and a buyer to every seller.

Position: A clearing house is technically a part of the exchange but for practical purposes it is a separate and in most cases, an independent organisation. In cases where it is not independent, it functions in conjunction with the exchange as a distinct entity. Since it is organised by the members of the exchanges for their use only, it is composed exclusively of these people who are known as clearing members. The transactions which the non-clearing house members made are cleared for them at a small charge by a clearing house member. The provisions

¹A cotton clearing house is often compared with a bank clearing house. But there is a fundamental difference between the two which may be noted and appreciated here. In the latter case, what is involved is the ownership of money, the value of which remains usually fixed. Hence, only the balance is payable to each member bank whereas, in the former case, its operation is complicated by the fact that clearings involve transfer of ownership of contracts of fluctuating values and upon the acceptance by the clearing house of transactions in futures the identity of the original buyer or seller is lost.

of the bye-laws of the clearing house are for the use and purpose of only its members against one another and none of them provides anything that would recognise the responsibility of the clearing house to non-members. The position of a non-member is precarious, since he has no protection against loss through the failure of his own agent. As the clearing house does not provide for the customers' protection, the probable remedy for them is to make the selection of a financially sound agent to safeguard their interests.

An important question may be asked at this point, namely, what assurance does the clearing house give that its member will always make good on the excess or open contracts which are not cancelled on a particular settlement? Such contracts remain open until opposite transactions are made or delivery effected. Since contracts often remain open for a number of days, weeks and even months, it is possible to have wide fluctuations which might offset the solvency of an agent. To safeguard against such a contingency, most of the American clearing houses insist on the provision of an adequate protection.¹ The purpose is that the assigned or pledged property acts as a guarantee for the performance of the contracts of the broker. Secondly, an elaborate system of margins is used, not only for the sake of protection but also to facilitate cancellation of transactions made for the same delivery period. There is nothing of this kind in our country. Consequently, when there are wide fluctuations, the operators have to bear the burden. For example, at the outbreak of the War in September, 1939, prices jumped so suddenly that many big parties could not meet liabilities and had to settle accounts mutually.² It therefore follows that the introduction of a deposit system with a view to

¹Ref. to Rules and Bye-laws of the New York and New Orleans Cotton Exchanges.

²"The market heaved a sigh of relief at night when it learnt that the settlement had passed off smoothly. The total amount paid by bears on account of the settlement is estimated to be in the neighbourhood of Rs. 80,00,000 out of which Rs. 20,00,000 is believed to have been paid by one party alone, while three parties settled their accounts with the consent of their creditors." The Times of India: 16th September 1939.

ensuring payments by members on account of liabilities resulting from wide fluctuations is long overdue and badly needed by the trade. Secondly the adoption of the margin system should also go a long way in improving the situation.

Management: A clearing house is under the management of a committee named "the clearing house committee." In the case of Bombay, it is composed of at least five members. The clearing house has its own set of officials and regulations. But the point is whether the clearing house committee should be appointed by the Board or elected annually by the general body in accordance with the rules. In Liverpool, this committee is annually elected by the general body while in Bombay it is appointed by the Board. In Liverpool, the general body enjoys the real powers while in Bombay the Board is solely responsible for its management and the general body is made subordinate to the Board. In the latter case, the Board has some scope for mischief in connection with the work of the clearing house. Personal influence might play its part and tend to be far from fair and just. In Liverpool, this committee is entrusted with the powers to make regulations for the carrying out of the purposes for which the clearing house is maintained. In Bombay this power of making regulations rests with the Board and the committee is responsible for the management of and the decisions (subject to the right of appeal to the Board) of disputes arising out of its working. Thus, in the former case, the committee has vast powers while in the latter, it has none. In view of this, it seems desirable that the committee in Bombay should be annually elected by the general body and not by the Board. The members will then like to be honest and just without being afraid of the Board or seeking any favour from the Directors.

4. FUNCTIONS OF A CLEARING HOUSE.

A modern clearing house performs the following principal functions: (1) To assume the liability or rights as against each member on all open contracts by substituting the clearing house as the seller of all bought contracts and the buyer of all sold contracts. (2) To clear money values of differences. (3) To clear the contracts. (4) To keep a record of all the registered contracts. (5) To fix

settlement prices. (6) To fix, in the case of periodical settlements, settlement dates, etc. (7) To supervise and direct the making of deliveries. (8) To guarantee, in a measure, against loss. (9) To see that each member maintains the proper margin deposits and (10) to pay the Government taxes on futures transactions. In America, the last two functions are a matter of administrative convenience. In India, the dues to the association from the members are received and any claims or liabilities of members to each other in respect of cotton business are also adjusted by the clearing house. In Liverpool, the clearing house performs all work connected with the cotton transactions. The remaining functions from 1 to 7 may conveniently be divided into two groups: (a) To clear monetary differences on closed transactions and (b) to clear actual cotton tendered, passing through several parties.

(a) **Settlement Terms:** So far as the settlement terms are concerned, they refer to what are generally called 'settlement prices' and 'settlement days'. This appears to be the most important of all the functions of a clearing house. Under the system of settlement terms all that is at stake between the parties to a contract is the difference which the prices of futures may show in the settlement period; whereas, under the system of settlement only by delivery, the whole difference in price arising between the price of futures and its ringing out is at stake. Settlement terms then are periodic tests of the solvency of the operators, who deal in futures contracts. They afford a guarantee that bankruptcy shall be discovered before deficits have become dangerously large. For instance, the figures of Bombay business are estimated approximately at Rs. 2 crores.¹ This figure gives an idea of the dimensions of trade in Bombay and the importance of the settlement terms.

The next point is the question of period for which settlement should be deferred. It is effected daily, weekly and even fortnightly. On the American cotton exchanges,

¹"The amount cleared on 30th November, 1924, amounted to a crore and eighty-eight lakhs of rupees, the highest on record in Bombay". Pamphlet issued by the E.I.C.A., March 1938. See also Appendix A.

daily settlements are effected. In Liverpool, at first, they provided for fortnightly settlement but afterwards resorted to weekly which is now customary between members. In India, Bombay¹ and Karachi have fortnightly settlements while the Mahajan Associations of Bombay and Surat prefer to have weekly and in Ahmedabad, both fortnightly and weekly. Under weekly or fortnightly settlement, all outstanding contracts are reduced to weekly or fortnightly settlement prices and the differences are paid or received every week or fortnight. The settlement prices are struck by the committees at 11 a.m. on each Monday in Liverpool and at 1 p.m. of each settlement day twice in a month in Bombay.² The decisions of the committee or Board fixing the settlement prices are not open to question. Only the net long or short contracts for delivery in each are carried forward at the settlement prices. All other contracts are deemed to be closed and must be rung out. Under the settlement terms each settlement on behalf of an individual member cannot affect those contracts in which delivery is contemplated by either party and it is in this connection that the clearing house performs one of its most important functions. The object of this daily, weekly or fortnightly settlement is obviously to limit the risk of both buyer and seller to the limits of a day, week or two weeks' fluctuations. Whatever is paid or received now by way of daily, weekly or fortnightly settlement is to be adjusted at the end of the life of a contract. Thus, the general principle underlying the system of clearing is one of partial payment pending final delivery and final settling up.

With regard to the period of settlement, it is argued that the daily settlement system is not at all adapted to the needs of the Liverpool and Bombay markets with their (1) system of brokers and jobbers and (ii) members' habit of doing business generally on credit and not on cash terms. Moreover, their respective associations have got rules providing for abnormal situations or strange circumstances. They, therefore, do not favour daily settlement. On the other hand, it is pointed out that the American system of daily settlement as contrasted with the postponement of

¹Vide Appendix A.

²In Bombay and Karachi they issue an annual calendar showing the days of settlement and other necessary particulars.

settlement for a week or two under the Liverpool or Bombay systems, serves as a precautionary restriction upon members against incurring excessive liability. Balancing these arguments against each other, we find that the daily settlement system is highly desirable in view of the risk and amount involved in trading upon the futures markets.

The case for Bombay is still peculiar in that it follows Liverpool in almost every respect except in the settlement period. Some of the members of the E.I.C.A. are of the opinion that there is a big difference between the circumstances current in Liverpool and those in Bombay.¹ It may however be stated that there can hardly be any sort of difference in the circumstances between these two markets in face of the fact that the risk and amounts involved in trading upon a futures market which may be either Bombay or Liverpool or any such big and important market are of the same magnitude. Hence, we are led to conclude that the sooner our market shortens the period of settlement the better for the trade in general.²

(b) **Settlement by deliveries:** With regard to deliveries of cotton, etc., there are various ways of doing this on an organised market. It may be recalled that most of the futures contracts are settled without actual delivery of spot cotton. It is very easy to transfer obligations on futures by offset, so that delivery will most probably be made to a different buyer from the one upon whose order a contract was originally executed. It is in connection with deliveries that the clearing house performs its other important function. It brings together the first seller and the last buyer by eliminating the intermediaries connected with one another by a number of contracts.

Transferable Notice: One of the delivery methods of settling a contract and clearing the accounts is known as 'settlement by passing of transferable notices'. The transferable notice is a form issued by a member who wishes to make delivery of cotton thereon. When a clearing house receives it, it ascertains from its books the names of the parties who have bought that particular position of a futures contract and passes the same among them. A member who does not intend to take delivery of cotton

¹Personal interviews.

²Vide Appendix A.

will, as soon as the notice is received, sell the contract and immediately deliver it to the buyer. The purpose of this notice is two-fold: (a) To serve notice upon the buyer that the seller is ready to make delivery upon his contract and (b) to use it in place of Railway or Warehouse receipts in the settlement of outstanding contracts. It may clear a score of outstanding transactions and is ultimately placed in the hands of a buyer who has not sold. A member who is long or has bought a contract may settle it without receiving cotton even after the receipt of the notice of delivery. In order to make more effective the transferability of obligations under futures contracts, the notice of delivery is also made transferable. In this way, the passing of a delivery notice forms a basis of contract settlement similar to that involved in the ring settlement or the process of clearing.

Delivery: In spite of the existence of all these methods, if a man wants to deliver or receive cotton against a futures contract, he has every right to do so. This, when effected, is known as the 'delivery method of settlement'. Under it, a futures contract is settled by actually tendering and receiving cotton. Of course, the parties making or taking delivery will be the original seller and the last buyer. The original purchaser and all other intermediaries will be dropped out. When actual delivery takes place, the notice in its statement of conditions of settlement does not name the price stipulated in the original contract. It names the settlement price which is fixed by the clearing house committee and final payment is made at a price varying by grade and staple in accordance with the prevailing system of differences. The settlement price is merely used as a convenience pending final adjustments at the end of deliveries. The total amount paid and received for the cotton delivered equals the amount stipulated in the original contract. The seller receives the original contract price, partly in the form of final price at which cotton is billed on delivery and partly in differences received or paid in clearings. The buyer likewise pays an equivalent of his original contract price in the form of the final settlement price plus or minus previous settlements. In the same way, a client making or taking delivery, pays or receives the specified original contract price. If his transactions

went against him he has paid losses largely prior to the date of delivery. When payment is received by the seller and the cotton delivered to the buyer, the contract is said to be closed. Rules regarding delivery must be observed otherwise, the party will be liable to penalty.

Position of a Non-Member: Since contracts can only be held between members who are liable to each other for all payments of differences due, non-members have no concern whatsoever with the clearing house. The position of a member therefore is a dual one, i.e. he is a principal to the clearing house and an agent to the customers. A non-member buying or selling through a member and wishing to get out of the market has only to ask his agent to enter into an opposite transaction of an equal amount of the same contract. When this is done, the agent renders the customer a statement showing the number of contracts bought and sold, the prices, the commission and the resultant gain or loss. The client deals only with his agent and his position therefore is determined entirely by himself. The member, on the other hand, deals with many other members and probably for several clients, some of whom may be long and some short of the market. The agent is liable to his clients to the extent of making sure that each member carries out his obligations. He is also personally responsible for making good to a client any loss caused by the failure of other clients or members. It is, therefore, of paramount importance that a non-member should offset his closed contracts and settle the differences as often as he can with the agent. The clearing member occasionally inquires of his customer whether he wants to settle the contracts or carry them forward. When the maturity date approaches, he requests the client for instructions regarding liquidation of holdings of the near month. In the absence of such instructions he reserves the right either to liquidate long contracts or to accept actual delivery at the account and risk of the client. Opposite is the case with regard to short contracts, i.e. the client has to give definite instructions on the day before the last trading day.

5. CLEARING PROCESS

The actual clearing process followed on the Indian markets particularly on the East India Cotton Association

and the Karachi Cotton Association, both from the point of view of a member and a clearing house is described below.¹ The day on which members submit their balance sheets to the clearing house is known as the 'Settlement Day', and the rate fixed on the clearing date is known as 'Settlement Rate'. First of all, members calculate the difference between the contract price and the settlement rate. They then exchange 'statements' and compare each other's accounts so that no error may be left. This is done not later than 12 noon on the day immediately preceding settlement day. Members hand over 'vouchers' showing the sums claimed to the parties from whom money is due on settlement. Such a voucher is an authoritative document in the nature of a cheque drawn on the clearing house which is presented by the receiver to the clearing house. The voucher received for sums to be claimed accompany the 'Balance Sheet' which is prepared and sent to the clearing house at the hour fixed by the Board on a settlement day.² A member whose balance sheet shows a debit balance pays into 'S' accounts with the Imperial Bank of India, the amount due from him. A member whose balance sheet shows a credit balance is paid on the next day the sum due to him by the clearing house. In preparing these accounts, interest is allowed up to the due date of delivery at the rate of 4½% per annum calculated on the aggregate sum³ due on each contract. A member who for any reason fails to pay the difference when due, is treated as having failed to meet his liabilities. The Board on receipt of such a report investigates the circumstances of the case and if it finds the failure proved, the member is suspended from all rights of membership. Any member who has thus failed may be re-instated at the option of the Board if it finds that the party has subsequently made an honourable settlement with his creditors.

¹The description is based on the Bye-laws relating to the clearing house of the respective bodies.

²Member handing in after the hour so fixed is charged late fee at the rate of rupee one per hour.

³To facilitate payments, pies and annas are eliminated, i.e. a sum less than 8 annas is ignored while 8 annas and more are treated as a rupee.

The clearing house after receiving all balance sheets and vouchers verifies their accuracy by means of a running number. All items (credit and debit) showing the total amount and the number of bales are checked. For every mistake reported, the party has to pay a fine of rupee one. The balance sheets are alphabetically arranged in two groups showing (1) all debit accounts and (2) all credit accounts. Finally, a settlement is made showing grand totals for both sides. In the case of default on the part of a member the Board fixes the clearing rate to close his outstanding contracts and the accounts are adjusted accordingly. Thus, the parties are made to suffer the least.

Actual delivery takes place during the delivery month. The delivery days are known as 'Tender days'. On these days, members have to send a complete list of their outstanding contracts to the clearing house for information. This list is called the 'Instruction form'. Contracts entered therein are in units of 50 bales. This form is in the nature of a balance sheet and shows the member's standing business. If the business is square, he has no need to receive or tender cotton. Any member desiring to tender cotton against a contract has to send particulars on an 'official delivery order form'.¹ The name of the last buyer is ascertained by the clearing house and entered in the form. It gives such tender a registered number and enters in the delivery order the difference in value between the standard basis of the contract and the particular description of cotton tendered. The delivery order received from the first seller is then passed by the clearing house and when this has been completed, it hands over to the buyer whose name appears to be the last thereon and who is known as a 'last buyer'. The order is stamped with the official stamp and is known as the 'Pakka Delivery Order'. A tender fee of annas eight is charged for every tender passed on in this manner. The last buyer makes necessary arrangements with regard to sampling, arbitration and weighing. He is usually not permitted to re-tender

¹This form specifies: (a) The contract price or the settlement price, if any, (b) The marks and descriptions of the cotton to be tendered, (c) The standard under which it is to be surveyed, (d) The jaitha or the godown in which the cotton is lying at the time, (e) The date of declaration and (f) The names of the seller and his intermediate buyer.

the delivery order received. For the purposes of adjusting accounts between intermediate parties the standard weight of a bale is taken as 3½ cwts. net or 392 lbs. If the last buyer is posted as the defaulter, his immediate seller becomes the last buyer with all obligations. No withdrawal of any tender under a futures contract is allowed. If a seller fails to tender, the buyer 'invoices the contract back'¹ at the spot rate of cotton contracted for plus a minimum penalty of Rs. 25/- per candy of 784 lbs.

6. ADVANTAGES AND OBJECTIONS

Advantages of a Clearing House: The development of clearing houses on different exchanges has greatly simplified the work of handling contracts and added to the safety of futures. Undoubtedly, a clearing organisation facilitates settlement of monetary differences and clears the contracts by ultimately passing over the actual delivery to the last buyer. In addition to this, it effects economies in volume and amounts of cheques and drafts. A member has to pay only the net balance of money instead of first paying in full his debit and subsequently receiving credits. A modern complete system of a clearing house is far in advance of those mutual and voluntary clearances. It saves and limits risks. It acts as a bank and serves as a safeguard to the trade. It rapidly brings different parties together and at once detects a weak one. It clears all business passed between members in a short time at less expense by assuming the position of a seller to a buyer and vice versa. A member has not to go in search of the other party. Business is carried on most expeditiously, economically and safely through the agency of the clearing house. It affords all facilities for off-setting and settling immediate differences on closed contracts and safeguards the interests of members against each other. It is designed for the convenient, quick and economic handling of transactions. In short, without such a system, futures trading cannot be maintained beyond a small fraction of its present proportions.

¹The expression 'invoice back' means that when a tender is rejected by the buyer, he instead of buying on account of the seller accepts the spot rate of the day and pays or receives the difference between the spot rate and the rate given in the delivery order.

Objections Against a Clearing House: At times, complaints are received against the system. It is said that the clearing house is entirely responsible for the various troubles that now-a-days crop up on the futures markets.¹ Speculation has increased to a considerable extent since its inception, and weak traders can easily operate on limited capital. It does not offer any protection to the customer. Further, it does not extend credit to any member, while under the old systems, mutual financial arrangements could be made. In those days the parties knew each other and could secure credit from friends and those having confidence in the financial strength of the debtor. The old methods were simple and not intricate as those of the present day.

Conclusion: In conclusion, it can be said that the advantages gained in efficiency and fairness far outweigh the objections raised. It may be admitted that the old systems gave credit, but it cannot be ignored that the present one effects a considerable saving in banking accommodation and in the use of credit. No doubt, the system offers facilities for speculation as distinct from dealing in actual cotton, but it has to be borne in mind that it checks wild gambling by weak dealers² who were dangerous to the cotton market before the present system of clearing house was introduced.

¹Personal interviews.

²Statement (supplied by the clearing house, E.I.C.A.) showing the number of defaulters and the amount involved since the introduction of the clearing house.

Year	No. of Defaulters.	Amount of Default Rs. [ooo]	Year	No. of Defaulters.	Amount of Default Rs. [ooo]
1918-19	2	not available	1930-31	1	11.8
1919-20	10	"	1931-32	1	10.3
1920-21	9	"	1932-33	—	—
1921-22	7	"	1933-34	1	5.2
1922-23	16	1390.9	1934-35	1	24.5
1923-24	2	29.1	1935-36	1	3.3
1924-25	2	7.7	1936-37	—	—
1925-26	2	47.6	1937-38	1	93.2
1926-27	8	190-0	1938-39	—	—
1927-28	9	835.2	1939-40	1	87.2
1928-29	3	68.2	1940-41	—	—
1929-30	5	212.8			

PART II

**SERVICES OF FUTURES TRADING AND MARKETS;
AND THEIR REGULATIONS.**

CHAPTER VII

HEDGING: PRINCIPLES AND PRACTICE

ONE of the chief functions of a futures market is to provide facilities to shift risks incidental to our roundabout methods of production and distribution. Cotton dealers buy during one season of the year and sell during the other. During this interval of time large changes in the level of prices frequently take place. It is with a view to avoiding the risk involved in these changes that a futures market is mostly availed of. The degree of protection, however, depends on the amount and proportion of losses that may be offset by the use of futures as a hedge. We propose to deal in the first place with the principles and practice of hedging in this chapter and then to examine some of the special problems of hedging in India in the following chapter.

1. THEORY OF HEDGING.

A trader buys in the producer's market and sells in the consumer's. His object is to secure the profit arising from differences prevailing between two market prices. This difference, under normal circumstances remains constant and constitutes a reward for the services of middlemen.

Definition: Hedging is a method employed by various interests dealing in an actual commodity such as, growers, dealers, merchants, importers, exporters, factory-owners and spinners, to protect themselves against losses which might result from price fluctuations. For instance, suppose a grower in India who hopes to get in March or April 50 bales of actual cotton from his field, sells 50 bales on the Bombay futures market. This transaction is a sort of covering one which is commonly known in the cotton trade as 'hedging' against his anticipated produce. Similarly, when a mill has got unsold yarn or cloth, and it sells equal quantity in a futures market to avoid risk of price fluctuations it will be called a hedging operation. Thus, the term 'hedging' denotes activity in a futures market by the dealers in spot market to protect themselves against price

changes. The word 'hedging' may then be defined as a purchase or sale for future delivery intended to offset and thereby protect a transaction in spot, e.g. suppose an Indian shipper who has bought cotton in mofussil in March, sells Broach April/May futures contract to approximately the same amount, and if the price of the Broach cotton falls in the month of April he will lose from this decline on his spot transaction, but his loss will be offset to a major extent by his sales of the futures contract which has also now gone down. A hedge transaction is therefore a simultaneous purchase and sale in two markets—spot and futures—which are expected to behave in such a way that any loss realised in one may be offset by an equivalent gain in the other.¹

The principle of hedging is based on the idea that there is an existing risk due to unexpected price movements ultimately resulting in a loss on a spot deal. Such risk is offset or hedged by setting up another transaction in a futures market in the opposite direction. This subsequent operation is nothing but a counterpart of the first already made in a spot market and the risk that exists in the actual handling of the commodity is thus covered or hedged. For instance, when our merchants buy 100 bales of ready cotton either in an upcountry or a spot market they sell an equal amount on the Bombay futures market,² and when they dispose of the 100 bales as a spot sale they buy back the same amount of futures. Similarly, a spinner may purchase futures concurrently with the sale of goods or he may in the same manner sell futures with the purchase of cotton. A dealer thus makes two equal and opposite transactions in two different markets, using, a spot market for merchandising purposes and a futures one for hedging.

¹Cf. "Hedging may be defined as the practice of making two contracts at about the same time of an opposite corresponding nature, the one in the actual trade and the other in the speculative market." S. S. Hubbner: *The Stock Market*: 1934, p.62.

²There are two types of hedging transactions: (a) hedging sale and (b) hedging purchase. When cotton is bought in upcountry an equivalent sale of futures is made; the transaction is called a hedging sale. Similarly, when spot cotton or cotton goods is sold in advance and an equivalent purchase of futures is made; the transaction is called a hedging purchase.

Assumption of a Normal Spread: Hedging is done on the assumption that prices of spot and futures contracts will move up and down together. There is some relationship between the prices of spot and futures contracts resulting from the individual situations in the two markets and it is known as a 'Normal Spread' between spot and futures prices. Every hedger either in India or abroad has to take this normal spread into account and base his operations accordingly. It is also assumed that as the transactions are in the opposite sides of the market, the decline or advance of one will be compensated by a corresponding fluctuation in the other. Hedging thus assumes the existence of a nearly parallel movement in spot and futures prices. If such behaviour follows, a perfect hedge has been effected. But such is not the case. The degree to which this safeguard applies is limited. In fact, there always occurs some difference in their movements.

In so far as the major price movement is concerned this assumption may however be taken as substantially accurate because spot and futures prices are governed by the same broad factors of supply and demand. Interdependent as these prices are, under normal conditions, they tend to move together. A rise in prices of spot cotton in relation to those of futures by an amount equal to the cost of carrying spot cotton is normally expected. The question is whether the normal relationship or normal spread between the two prices is maintained throughout till the hedging operation is accomplished. Changes in the relative supply and demand situations in the two markets bring about irregular variations in their normal spread. Perfect protection is only provided when the prices of different qualities of cotton move parallel to the price of the basic grade adopted for futures contract. If they do not, the hedger is still subject, in a minor degree, to the risks of price movements. For instance, if a spinner in India wishes to guarantee himself the supply of the Punjab/American cotton for future delivery, he will buy the Broach April/May futures contract as a hedge, but if the price of the Punjab/American cotton rises to a greater degree than that of the Broach futures, his loss will then consist of the extent to which the prices of the two types of cotton have got out of 'normal spread' or line. The fact

that this normal relationship may not prevail adds an element of risk to hedging operations. If the spot and futures markets were always moving together or if the price relationship between the different grades of cotton remained constant, hedging would be an operation giving highly desirable results. The hedge under the prevalence of normal spread, of course, tends to eliminate speculative losses arising from variations in major movements or general level of cotton prices, and leave commercial returns more or less untouched. It is certain that on an average, during a single season this relationship remains sufficiently constant to make hedging of great value, for, the spot and future prices do move together with considerable regularity.¹ But when the normal spread is disturbed the protection offered by hedging becomes imperfect. Not only the normal relationship between spot and futures prices alters, but the price relationship between grades of cotton also undergoes a vast change between the time when the hedge is placed and the time when it is lifted up. The reasons explaining the occurrence of a disturbance in the

¹Table* showing monthly average of prices of Hedge Contracts and Spot Rates: 1938-39. (In Rs. per candy of 784 lbs.)

MONTH	BENGAL			BROACH			OMRA		
	Hedge Cont. Dec.-Jan.	Spot Rts. F. G. Bengals.	Hedge Cont. April-May	Spot Rts. F. G. Broach.	Hedge Cont. Dec.-Jan.	Spot Rts. Fines Oomr			
1938	1939		1939		1939				
Sept.	115	...	154	142	137				...
Oct.	117	...	154	...	138				...
Nov.	120	122	158	...	144				150
Dec.	121	123	158	...	146 ^a				150
1939									
Jan.	121	123	157	...	146				147
Feb.	...	118	151	151	...				142
Mar.	...	119	154	155	...				143
	1940		1940		1940				
April	114	116	150	155	135				143
May	118	124	154	168	141				160
June	120	126	159	170	145				160
July	117	123	153	158	142				154
August	120	125	155	160	146				154

*Compiled from the Bombay Cotton Annual.

normal spread will be set forth in the following section. It is sufficient to note at present that if any definite spread or price relationship between the markets appears with great frequency and permanence, the hedger is relatively safe in assuming that the two prices will fluctuate in unison and may operate with confidence.

Benefits: Hedging is practised for two main advantages: (1) to secure an insurance against price hazards and (2) to facilitate the financing of market operations. It goes without saying that if protection against an adverse movement of prices is to be secured, it cannot be obtained without giving up the profit likely to result from a favourable movement. In other words, the hedger foregoes the chance of gain through price fluctuations in his favour in order to insure himself against loss when such movements go against him. The possibility of having to forego speculative profit in this way is to be regarded as a premium on an insurance secured through a hedge which guarantees the hedger against speculative loss. The difference between a trader who follows the policy of hedging and the one who does not, is that the former gets a comparatively smaller but more certain profit while the latter's profit though larger is more uncertain. Again, the amount of credit which a trader can secure with a hedged commodity is relatively greater. When cotton is not hedged, the percentage of its value advanced by the bank of England is usually lower.¹ The practice of banks and financiers in accepting cotton as collateral for loans varies in India. In private banking circles the percentages depend upon market conditions, but the proportions of 90-95% and 70-75% are fairly representative.² A striking example of the value of hedging is furnished by the Federal Farm Board in granting loans to co-operative cotton marketing associations. These loans amount to 90% of the value of hedged

¹"Liverpool banks lent freely with a margin of only 5% against hedged commodities, but with a much wider margin against unhedged ones. Thus for unhedged cotton they might require a margin of 30%." Proceedings of the Washington Congress, 1931, p.35. International Chamber of Commerce.

²Personal investigation.

cotton and not more than 75% for unhedged cotton.¹ The combination of both these advantages results in the possibility of doing business on a much smaller margin of profit to the trader. Because of hedging, hedgers are able to put in a larger business with the same amount of capital. This means smaller cost per unit of a commodity handled. Through the force of competition the margin between the purchase and sale prices has been reduced in proportion to the lower handling charges. Hedging thus tends to make it possible to give the benefit of either lower prices to consumers or higher prices to producers and at times, to both of them. It may therefore be said that hedging is of great benefit to the trade.

Dependence of Hedging on Speculation: On a futures market, every hedging operation involves two parties: (i) the dealer in spot cotton, i.e. the hedger himself and (ii) the dealer in futures, i.e. the opposite party. This second party is generally a speculator. It is the speculator, ready to buy or sell at any moment, who furnishes hedgers with the required party and assumes the risk. He may continue to carry a contract on either side as required by the trade. He, in his turn, sells to or buys from some one else and makes his profit or loss. This third party then carries forward the weight of the hedge. Thus, any particular position created by a hedger may be passed from party to party a score of times before its ultimate closing.

Hedging demands the existence of a constant market which is provided by the speculator. If there were no speculators, hedging interests would have been obliged to shoulder the risk themselves. Speculators sell as well as buy taking thereby a 'short' or selling and 'long' or buying positions in the market. This is essential particularly for hedgers whose operations require at one time a buyer and at the other a seller. Moreover, a hedging purchase seldom equals a hedging sale when a hedger wants to operate and vice versa. In the absence of speculators the position of hedgers would be that if in a given season there was an excess supply of hedging contracts from dealers over the number required as hedging purchases by spinners, the price would be forced so low that manufacturers

¹Report of the Special committee of the Chamber of Commerce, U.S.A., 1930, p.24.

would be induced to contract in advance for their supplies of raw material. The load of the market will thus be taken by the spinners. Similarly, in the case of an excess demand for hedges from industries and a consequent high price, prospective sellers might be induced to sell their contracts in advance. Such a development would mean that dealers and manufacturers bear the burden of the inevitable risk arising from their ordinary marketing transactions. Further, a futures market composed purely of hedgers will in all probability encounter considerable difficulty in timing the transaction and finding the required opposite party. In fact, the need of dealers, in actual cotton, who like to buy or sell hedges does neither coincide in time nor necessarily in volume. As a practical issue, there can therefore be no hedging without speculation. The existence of a hedging market thus presupposes the existence of a speculative market.

2. CONSIDERATION OF BASIS.

In the preceding section we have noticed that the theory of hedging rests on the assumption of a 'normal spread' between spot and futures prices. This very assumption is the real source of its shortcomings. The fact is that the question of maintaining a normal price relationship or normal spread between the spot and futures prices presents a baffling problem to hedgers, since, it resolves itself into a consideration of 'basis' which is a variable factor.

Meaning of the term 'Basis': The word 'basis' is a general expression applied in business usages to a number of closely related situations. Ordinarily, it is used in three different meanings: (1) the widening or narrowing of differences expressed technically as points 'on' and 'off' on one or more of the qualities determining class of cotton, (2) to designate the settlement grade in a futures contract from which 'ons' and 'offs' are reckoned and (3) to designate the relative values of spot and futures cotton. It may further be used as the 'buying basis' and 'selling basis'. The former refers to the amount bid or paid per unit over and under some specified terms, while the latter refers to the amount over or under the futures at which a sale of spot cotton is made or offered. The trade at times also speaks of an 'advancing basis' or a 'declining basis'. For instance, when the price of Broach April/May contract on a given

day in the Bombay market goes to, say, Rs. 170/- from Rs. 176/- but the price of Fully Good Machine-ginned Broach goes down to, say, Rs. 178/- from Rs. 180/- the basis on that day will be Rs. 8/-. This will be called the 'advancing basis' in comparison with the previous basis of Rs. 4/-. The reverse will be true in the case of the 'declining basis', e.g. on a given day the price of Broach April/May futures contract may go up to Rs. 180/- when the price of the F.G.M.G. Broach cotton in the spot market may have advanced to Rs. 182/-. The basis in this case will be Rs. 2/- only and the trade will say that the basis is declining. Hence, 'basis' may be defined here:

"The word (basis) is usually used to designate the relationship between the price of spot cotton and of contracts for future delivery or the points on or off spot cotton compared with the price of futures contracts."¹

Expressed alternatively, the term 'basis' means the difference or price relationship between the price of a futures contract and the spot price of the basic grade used in that futures contract. For instance, if the price of the Broach April/May futures contract in the Bombay market on a given day is quoted at Rs. 176/- and the price of F.G.M.G. Broach cotton (which is a basic grade for the Broach futures contract) in the spot market is Rs. 180/-, the 'basis' will be Rs. 4/-. This will be expressed in the trade language as '4 on' and in the case of a spot quotation of Rs. 172/- for the same grade as '4 off' the Broach futures contract.

Elements of Basis: A merchant or spinner who uses a futures market as a hedging medium never thinks in terms of price but always in that of 'basis'.² Basis is a more important matter to a hedger than is the trend of prices. In fact, the latter is entirely immaterial if the normal spread or 'basis' remains the same when the hedge is closed as when it was placed. It is the risk involved in basis that renders a hedge far from affording a complete means of insurance. There are various elements which go to make up the basis. These elements are: (i) premium, (ii) cost of delivery, (iii) business profit, (iv) manufacturing condi-

¹A. B. Cox: Marketing American Cotton in England, 1928, p.57.

²Trading in the Bombay and Karachi spot markets is done in terms of the basis rather than in those of absolute prices.

tions, (v) crop conditions and (vi) market conditions. The first three may be said to form one group since they remain more or less constant and the other three to form another group since they, from their very nature, are changing.

Thus, in the consideration of the problem of basis, all these elements must be taken into account both individually and collectively.

Causes of Variations in Basis: It is generally known in the trade that, at times, spot cotton is worth more than futures; sometimes it is even and at other times, it is lower than futures. This difference between the prices of spot and futures may be made up of a number of factors. These factors may conveniently be divided into four groups; viz., (a) Interrelation of spot and futures prices, (b) Differences in place and date of delivery, (c) systems of fixing differences and (d) other factors.

(a) **Interrelation of spot and futures prices:** The principal group of factors causing variations in the basis arise from the interrelation of spot and futures prices. The important influence in causing spot to rise is the storage costs. Cotton stored into even-running lots commands a better price than the same amount of bales when unassembled. The carrying of cotton in storage involves expenses for warehousing, interest, insurance, deterioration and so forth. Most of these charges vary more or less directly with the length of the storage period. Hence, the premium in spot over futures should vary directly with the remoteness of the position of a futures contract traded in. This tendency refers to both the prices for the same crop. Similarly, the spot price normally rises relative to that of futures as the crop year advances. The premium of any given futures should vary directly within the same crop year with the difference in time between each spot trading month and the given position of a futures contract. The largest premium should appear for the remotest position and the smallest in the month of maturity, because, the carrying charges in the former are the greatest and in the latter the smallest. Discounts of futures under spots are to be commonly expected when a futures is for a new crop and a spot for an old one. Further, short crops tend to advance spot prices more rapidly than the futures. This advance is likely to affect the price of the near positions of futures

in comparison with that of the more distant ones. Large crops, on the other hand would depress spot prices in the early part of the marketing season. As a result, the price of the near positions of futures would go down as compared with that of the distant ones.

(b) **Differences in place and date of delivery, etc.:** Fluctuations in the basis are also largely accounted for by differences in place and date of delivery, in terms and conditions of sale as well as in the quality and classification of cotton. Prices of the same quality in various markets differ considerably and these differences are reflected in the basis. Prices of futures contracts in different markets for delivery during the same period may differ widely and result in a substantial difference in the basis. In the same way, differences in terms and conditions of sales affect the basis. One of the most important factors affecting the basis is the difference between the immediate and prospective demand and supply situation for cotton. Large supplies of spot cotton immediately available in a market may depress prices of spot in relation to those of futures, particularly for the more distant positions of a futures contract and vice versa. Price pegging or other forms of an organized control may result in a relative shortage of supplies of spot cotton immediately available in a market, so that prices of spot cotton may be high in relation to those of futures, particularly for the more distant positions, even when the total physical quantity of cotton in existence is relatively large. Prices of spot cotton may vary appreciably with the grade and staple length designations and these variations in prices are reflected in the basis. Spot prices for higher grades and long staples may be substantially higher than prices of futures contracts whereas at the same time and in the same market prices of lower grades and shorter staples may be materially lower than those of futures. These differences on the basis of grade and staple length vary with changes in the relative supply and demand situation for cotton of various qualities in a given market.

(c) **Systems of fixing differences:** Another important group of factors causing wide variations in Basis is the system of fixing differences between the basic grade of the futures contract and the range of other deliverable

grades. The futures contract provides that any of a number of grades may be delivered at the option of the seller in fulfilment of a contract. These grades have a commercial value. Their relative prices in a spot market plus or minus the premium or discount for any given date determine which grade will be most profitable for the seller to deliver. At any given time, there is usually a particular grade which sellers may deliver to better advantage than others. The futures price will reflect that grade which at any given time is most profitable to deliver. This is easily seen from the buyer's point of view. He is aware that the seller has a right to choose any grade. He will, therefore, base his bid knowing that the seller will choose the cheapest grade. The futures price will reflect this "most likely deliverable" grade not only during the delivery period but for months in advance. This is the basic and permanent factor causing variations at all seasons of the year between the two markets. The extent of deviation is measured by the degree of variation occurring from time to time between the most likely deliverable grade and each of the other grades of cotton.

Generally speaking there are two systems for fixing differences: (1) the periodic or fixed difference system and (ii) the commercial difference system. As their names suggest, under the first system a schedule of price differentials is used subject to regular periodical revision. Under the second, instead of fixing the differentials in advance they are established daily and applied currently to deliveries. The first system operates on the theory that the established differentials should be kept in proximity to those prevailing in the spot markets and this can be done by an occasional adjustment. The plan gives greater emphasis to the possible delivery of grades other than the basic grade. One of the main limitations of this system lies in efforts made to estimate at the outset of the season what the prevailing commercial differentials will be for the whole period. Its other important limitation is the human element of bias and error in judgment. The second system eliminates any major mal-adjustment between actual spot differences and those applied on futures contracts. This system is also not free from limitations. It is subject, as in the preceding case, to personal element.

Daily differences 'on' and 'off' might well be arbitrarily altered either way. Moreover, daily adjustments of differentials continually create uncertainty in the minds of hedgers, regarding the true value of their hedges. While this limitation might be thought to be a small one because deliveries on futures are small, it is important in the sense that continual uncertainty is created whether delivery takes place or not.

A set of differences based essentially on spinning values has therefore been proposed by a section of the trade. The advocates of this plan believe it possible through scientific spinning tests to establish differences once for all and thus to eliminate a most vexed problem. The process suggested is that estimates of waste in each grade might be made after testing a large number of bales. These figures may then be reduced to percentages of basic grade. This will enable the trade to establish permanent differences for each grade. The plan overcomes the common limitation of human element. There is no doubt about the fact that the plan has a place in establishing commercial values but the percentage of yarn turned out is only one factor in determining differences. Other factors vary from mill to mill and from time to time, depending on a variety of causes. The laying out of machinery, the placing and training of labourers, the establishment of branded goods and other influences are the price-making factors independent of the yarn outturn. Further difficulty lies in the fact that the volume of cotton is not measured by its spinning contents alone, but the character of cotton, i.e. colour, strength, cleanliness, etc., is of material importance. Under the spinning difference system it is likely that longer staples would hardly be delivered and the quality would be poor. This would most certainly have a depressive and uncertain effect upon the price of futures.

There is a wide variation in relative prices between the various grades. Relative price changes are occasioned mainly by corresponding changes in the demand for and supply of each grade produced every year. Any changes in relative prices are certain to cause loss to some hedgers. Hence, it is hoped that the difference system may be so adjusted as to prevent losses. This cannot, however, be the case so long as the cotton futures market permits deli-

very of a number of grades and classes, capable of wide variations in price in a spot market.

(d) **Other factors:** Other factors affecting the basis are: (i) the rate of consumption of particular grades and staples, (ii) differences between various grades and staples in the spot, (iii) changes in the volume of futures transactions,¹ (iv) squeezes or corners resulting from natural or artificial factors, (v) changes in exchange rates and in freight rates, (vi) variations in the condition and position of deliverable supplies, (vii) markets for spot cotton are widely scattered while those in futures are centered at a few places. As a result, purely local conditions affect spot prices more than futures.

A buyer of a futures contract has the privilege of converting it into actual cotton. If the former fails to keep pace with any advance in the latter, he can actually tender by selling it. In the case of a decline in spot prices, a seller of futures has the opportunity of acquiring the spot commodity at a favourable price and making a delivery upon futures if it fails to decline. It is this knowledge of such alternatives that keeps the futures price in line with that of the spot. Spot and futures prices are held in line not only by such knowledge but also by 'badla' or straddle operations between these two markets. For example, if April/May Broach advances without a corresponding increase in the price of spot, merchants will buy the spot and sell a corresponding amount of futures. This kind of straddling will bring the two markets back into line. Similarly, spot prices may temporarily be too high relative to the futures. Merchants will then be encouraged to sell their spot cotton at once; and as sales are made, they will remove their hedges in a futures market by buying an equal quantity of the futures. This will tend to advance the price of futures and to lessen the demand in the spot market. The significance and importance of the spot-futures spread thus lie in the fact that the relationship of spot and futures prices primarily determines the effectiveness of hedging.

¹Speculative operations on a large scale create price movements of futures which may not be accompanied by equivalent changes in spot prices.

Basis Gain and Loss: Fluctuations in the basis may, however, result in substantial gains or losses which are not offset by the normal hedging operation. It is a basis gain or loss that is all important to a hedger. He is protected against any general movement in a market.¹ If he can so manage his business that a basis gain covers costs of operation and leaves a profit, his business is a success irrespective of the market being high, low, advancing or declining. But the basis loss constitutes the principal limitation to a successful application of hedging.

Gross basis gain or loss is made up of two parts entirely different in character: (i) the expected basis gain and (ii) the unexpected basis gain or loss. Together they account for the 'gross gain or loss'. These estimates may turn out to be too small or at times more than sufficient. As a rule, they are comparatively small, though occasionally a relative and unexpected change of large proportions takes place. To some extent these unexpected basis changes are neutralised by counter movements at other times thus minimising their importance. Again, changing basis between markets make the hedge far from being a simple matter. Big concerns greatly enlarge their hedge position through the use of 'badla' or straddle. The aim of a hedger in effecting a combination of 'badla' transactions and hedges is to secure opportunities for shifting futures to meet changing trade or technical conditions and thereby to enlarge his gross profit. It affords him a greater freedom of operating in either spot or futures market as the situation warrants. It is needless to point out that such operations require ample resources and a thorough insight into the probable developments in the basis during every season. Moreover, hedging is something more than mere setting up counter futures transactions and hoping for the best, since, it does not insure against inefficient management, deterioration in commodity, changes in tariffs, handling and carrying costs and many other factors.

¹"It may be said, perhaps, that the price risk faced by a hedging merchant or spinner in the fluctuations of basis prices is not more than 10 to 15% of the price risk faced by a non-hedging merchant or spinner in the fluctuations of full prices, on an average, for hedging provides perhaps, 85 to 90% protection against loss by price changes on the descriptions most commonly bought and sold." A. H. Garside: Cotton Goes to Market, p.288.

Illustrations: A few illustrations will facilitate the understanding of basis gain or loss on a hedging transaction.

Suppose a merchant sells 100 bales, the Sind Sudhar or N.T. cotton at 60 'on' Broach April/May on December 12th 1939 to a spinner in Bombay. He makes his actual purchase of N.T. cotton at 55 'on' on January 27th 1940 when he also enters into a hedging operation by selling 100 bales Broach April/May at the prevailing rate which was, say, Rs. 264. Then the man to whom he sold N.T. 100 bales comes on February, 26th 1940 to fix the price when the rate was Rs. 271. A page in the merchant's book will show the following entries:

Date	Bought	Sold
12-12-39		60 'on' Broach April/
27-1-40	100 bales N.T. ready at May	100 bales N.T.
	55 'on' Broach April/ 100 bales April/May May at Rs. 264. futures at Rs. 264 (264+55=319)	
26-2-40	100 bales April/May futures at Rs. 271.	100 bales N.T. ready at Rs. 331. (Rs. 271 plus 60)
Gain on spot transactions		Rs. 12 per candy
Loss on futures transactions		Rs. 7 per candy
Net profit or (Rs. 5 x 50 candy)	Rs. 250 on 100 bales N.T. cotton.	Rs. 5 per candy

Again, suppose a merchant in Bombay on January 20th 1939 sold to a Manchester buyer 500 bales 4F cotton for March shipment at points 67 'off' May Liverpool. On Feb. 1st, 1939, he made a purchase of 500 bales, 4F cotton in Karachi at Rs. 160 per candy. Against this, he sold 400 bales, May futures in Liverpool at 4.64d on the same day. The call was fixed on 24th March 1939 when Liverpool was 4.77d. On the very day he bought 400 bales May (futures) Liverpool at 4.77d. In this case, the actual sale of 4F in Bombay would work out at $(4.77 - .67) = 4.10d$. This might roughly be taken as Rs. 164 per candy. His actual purchase of 4F in the Karachi market was at Rs. 160 per candy. This gave him a net profit of Rs. 4/- per candy or Rs. 1000 per whole transaction in India. But he incurred a loss of $(4.77 - 4.64)$ points 13 on a Liverpool May futures

operation which would roughly come to about £120 x 13 1/3 = Rs. 1600. His books will show the position as under:

Date	Bought	Sold
20-1-39		500 bales 4F at .67 'off' May Liverpool
1-2-39	500 bales 4F ready at Rs. 160 per candy.	400 bales May Liverpool at 4.64d.
24-3-39	400 bales May Liver- pool at 4.77d.	Call fixed at 4.77d i.e. 4.77—.67 = 4.10d.
Gain on Indian transaction		Rs. 1000
Loss on Liverpool transaction (£120 at 1/6)		Rs. 1600
Net loss on 500 bales 4F cotton		Rs. 600

Further, during the season 1939-40, Champaner Cotton which is a variety of Broach was sold at Rs. 8 'on' in April and May in Bombay. In July when the call was fixed it was sold at Rs. 25 'on' July/August giving a net profit of Rs. 17/- per candy.

African A.R. Kampala was sold in March at Rs. 127/- 'on' on Broach April/May futures in Bombay. In July it went up to Rs. 217 'on' when the call was fixed giving thereby a net gain of Rs. 90.

Adoni Farm i.e. select variety was available in April at Rs. 20/- 'on'. In July it was sold at Rs. 50 'on' thus giving a gain of Rs. 30/- per candy.

Risk is also equally great. During the season 1939-40 due to the War, Kampala had gone up to Rs. 202 'on' and then dropped down to Rs. 167 'on' resulting in a net loss of Rs. 35/- to people who bought at Rs. 202 'on' and sold at Rs. 167 'on'. This variety further dropped later on to Rs. 127 'on'. A net loss of Rs. 40/- from 167 or Rs. 75 from 202.

Fluctuations in C.P. Tracts are practically seasonal every year. In the beginning, say, in December it is sold at Rs. 20/- 'on' or so, on the basis of Oomra contract and then drops to Rs. 11 to 14 'on' by March. Broach cotton affects it considerably. Likewise, N.T., 289F, etc., i.e. Sind-Punjab

varieties from October to December sell at Rs. 50/- to Rs. 60/- 'on' Broach April/May futures. Then, when Surat, Navsari, etc. come in, these 'ons' drop to Rs. 40 to 35 'ons' causing a loss to merchants who cannot sell off before these competitive styles come in.

It may therefore be concluded that while the hedging supplies an efficient means of insurance, it does not give complete protection. The protection furnished by hedging is imperfect because of the consideration of the basis. Recognising hedging as an inevitable operation in the marketing of cotton crop, the basis risk must thus be regarded as an integral part of hedging and calculations must be made accordingly.

3. SYSTEM OF 'ON CALL'.

Changed conditions in the cotton trade and market have brought about a modification in hedging practices for mills. Hand-to-mouth buying has characterised the textile industry for many years. Another variant is that some mills do not hedge purchases of spot cotton at all. They employ 'on call' method of buying their requirements. Buying and selling 'on call' has developed largely since 1920 due to hand-to-mouth policy of retailers and wholesalers of cotton goods.

Nature of 'On Call': An 'on call' transaction is the one wherein a seller agrees to deliver certain quantity of cotton and a buyer agrees to receive it within a certain period. An option or right for the date of 'call' is given to the buyer or seller, as the case may be, who fixes the price at so many points 'on' or 'off' the specified position of a futures contract. A 'call' is an option or a right to choose the time to fix the price. Under this system the position, quantity and points 'on' or 'off' are fixed at the time of making a contract except the price. Such a transaction takes either of two forms: (i) a buyer's call contract or (ii) a seller's call contract. For instance, in India, a large part of export business as well as a considerable proportion of buying by mills is done on either the buyer's or seller's call. Our mills very largely use a buyer's call and the sellers and merchants a seller's call. Under the buyer's call, the buyer has the privilege of fixing the price

on the cotton purchased at any time until the delivery period and the reverse is the case under the seller's call. What is common in both types is that so many rupees or points 'on' or 'off' a particular position of a futures contract, say, Broach April/May are fixed at the time of making the contract; leaving the ultimate price to be fixed later on when the party having option of fixing a call thinks it advisable to do so. For instance, a particular Indian mill might estimate its needs for the next six months on September 1st at 1000 bales of the Sind/Punjab American varieties of fine average staple cotton, for each month. It then inquires from a merchant about his quotations for an 'on call', delivery at the mill in Ahmedabad. The merchant notes the prevailing basis for this style which may be Rs. 50/- 'on' April/May Broach. He estimates the cost of delivering cotton at the mill in Ahmedabad with an allowance for profit and considers any likely changes in the basis, the character of the crop, the ease with which business is being placed, the credit, etc. He in turn offers to sell the cotton at Rs. 60/- 'on'. Assuming that the mill accepts the offer, it will have a right to determine the price by calling it at any time during the life of the contract. The actual purchase price will be the price of the April/May futures on the day the call is fixed plus the 'on' difference of Rs. 60/-. If the cotton is not called sometimes during the period of the contract it is automatically called on the last day.¹ Under the seller's call contract the seller fixes the price of cotton sold and the other process is the same.

Inter-relation of 'On Call' and Hedging: Under a buyer's call, if a seller of spot cotton does not wish to speculate for a profit through change in the basis, he will buy spot and sell futures holding the hedge or futures sales until the buyer fixes the price. After the final price is fixed, he buys in the futures and bills the buyer according to the terms of purchase. If he does not purchase spot cotton

¹Usually, however, arrangements can be made to extend the period though this may be costly to the mills. Some merchants insert a clause in call contracts requiring the fixing of the price not later than the beginning of the delivery period of the futures and all try to persuade the spinner not to postpone his buying too long. They insist on the prices being fixed before the expiry of the contract.

till the buyer calls and the basis widens in the meantime he incurs a loss in the case of 'on' basis or makes a profit in the case of 'off' basis. The reverse is true when the basis has narrowed. So far as the merchant in Bombay or Karachi is concerned he hedges supplies involved under his call contracts by sales of futures from the time the cotton is bought till the date it is called. In practice, the purchase of a futures by him on the day the cotton is called serves a double purpose of closing the merchant's hedge and establishing the basic price for the call contract to which is added or subtracted the agreed difference 'on' or 'off' the particular futures contract.

The call contract as such does not involve hedging operation. The primary use of a futures market in such a contract is for price determining instead of for hedging. A merchant does not need to hedge until he buys spot cotton and that would be an occasion for a hedge sale equally in any other case. Many mills in India seldom employ a futures market for hedging and a buyer's call contract largely frees them from such a need. When to place a hedge sale and how to handle it is a concern of a merchant. The only concern of a spinner is a fair fixation of price. A spinner usually does not call the price soon after entering upon a buyer's call contract. During the time that passes between the making of a contract and the price fixation, if the merchant has not yet purchased the required cotton to supply the spinner, the price fixed by the latter gives the former an open futures purchase for a hedge. If he has already bought the cotton, the price fixed closes the hedge sale. Thus the system of 'on call' and hedging are inter-related with each other, and 'on call' transactions are in purpose, if not in appearance, hedging operations.

Advantages of the system of 'On Call': If the crop of any particular variety is reported as being short and the price is comparatively higher, a mill will use the buyer's call for deliveries at certain dates and make the call when the price is such that it will result in a profit. The price of the contract on which the call is based is taken into account while quoting the prices on orders for yarns or cloth to customers, and after the sale is effected the price of raw cotton is fixed near that price as far as practicable. Similarly, a farmer can leave his crop with the factory owner

fixing the 'on' or 'off' and leaving the final price to be settled when he thinks it profitable. Thus the producer and the consumer both can get the benefit of the system. The special advantages of this system to a spinner are that (i) it gives him a definite assurance of adequate supply of the particular quality of cotton required by him and (ii) it permits him to fix the price of the cotton in line with the sale value of the product. A call contract protects the user against a loss arising from a change in the basis and allows him to fix the price when he thinks it advisable to do so. It enables a mill to obtain a stated quantity and quality of cotton without commitment as to price. A spinner secures his needs for some time ahead without having to pay up for it before he sells his yarn. As sales of goods are made, the mill calls for a portion of the cotton as needed or all at some particular time. If the general level of cotton prices declines, the mill will probably have to sell at lower figures to meet competition. But it will in turn obtain its supplies of raw cotton at a lower level by an amount equal to the decline in futures. In short, by means of 'call' contracts, a spinner is enabled to have a supply of the right kind of cotton when required, without taking the risk of price fluctuations, without having to store the cotton much ahead and also without having to pay interest on capital.

Its Dangers: While the system has certain advantages and renders genuine service to mills and growers, it is not free from drawbacks. From its very nature the first and foremost drawback is that a transaction is not really complete until the price is definitely fixed. It may happen that in a particular position of a futures contract, there may be a large number of such calls accumulated to be fixed. Under such circumstances, prices are likely to go up temporarily. This in turn affects the basis which is not beneficial to the trade in general. Another disadvantage is that a buyer is not going to the market at the time of entering into an 'on call' transaction. This has the effect of not allowing the price to find its own level, which normally would have been the case had the buyer made an outright purchase in the market. Thirdly, it keeps the rate of the transaction standing. To call cotton without fixing prices is tantamount to taking advantage of price

fluctuations in future. This, at times, encourages the user to indulge in speculating in futures or the probable trend of prices and the danger is that it may lead him to 'take a view' of the market. In other words, the system induces or facilitates the user to speculate in 'call contracts' which is not healthy for merchandisers, producers or consumers of actual cotton. This generally happens when a buyer anticipates the demand of certain descriptions at a future date. Moreover, the action becomes a regular price-making factor in the market when the buyer comes to fix up the call. Hence, it is difficult to say whether, on the whole, the advantages of the 'call' system tend to outweigh its probable dangers.

4. EXTENT OF THE USE OF HEDGING.

Hedging and Merchandising Interests: The use of hedging varies widely between the various interests engaged in the marketing of cotton. Among the cotton merchants, dealers, shippers and those who share in the handling of raw cotton in India hedging is a general practice.¹ Those who are inclined to take speculative risks rather than make use of a futures market do not hedge. Otherwise cotton is hedged from the time of its reaching the concentration point until represented in sales of manufactured goods. The practice of hedging is regarded by the merchandisers of spot commodity not only as desirable but economically also a sound policy for their business venture.

Hedging and Mills: Mills avail themselves of hedging facilities partly by way of (i) directly selling and buying futures respectively against their purchase of raw materials and sale of finished products and mainly (ii) by employing futures as hedges by an indirect method of using 'on call' system. The practice of buying 'on call' which while not a hedge may serve to keep the position of mills even, if properly used.

Hedging and Farmers: Among the farmers especially in India hedging is rarely used.² They do not hedge for obvious reasons. Most of them sell promptly. In many instances, they are indebted to middlemen or financiers.

¹Personal investigation.

²Personal investigation and also ref. to report of the Bombay Provincial Banking Inquiry Committee; 1929-30, Vol. I. p.101.

They are thus not in a position to hold cotton under hedge. Further, a grower's failure to use a futures market even supposing he would like to avoid the risk involved in price variations can easily be explained. In most cases, our farmers have no knowledge of futures or hedging. Those who have are faced with other difficulties. The crop of an individual Indian farmer is generally 10 to 20 bales and in a few cases, 50 to 100 bales. Under this situation he cannot employ futures as sales against his crop. Moreover, the clearing amount and at times the margin money required of the holder of an open futures contract make it difficult for a poor and small grower to hedge. In this country, a grower with a large crop can ordinarily sell his cotton promptly without the agency of a futures contract. In so doing he avoids commission expense, interest charges and cost of carrying spot cotton. Finally, in the majority of cases, the farmers wait for better prices due to their natural inclination as sellers.

Conclusion: So far as the extent of hedging is concerned, it may be said that a cotton futures market in India is used for hedging as a regular practice by exporters, merchants, and indirectly by manufacturers. But the average Indian grower or factory-owner makes very little use of hedging.

CHAPTER VIII

HEDGING (CONTD.): PROBLEMS IN INDIA

Introductory: IN the preceding chapter it has been pointed out that there are two kinds of risks against which a hedger needs protection. The first arises from fluctuations in the price level of cotton and the second from variations in the basis. So far as the first risk is concerned, a hedger gets complete protection by entering into a futures contract in a futures market to counteract the sale or purchase of cotton in a spot market. With regard to the second, the position is best summarised in the market maxim that 'basis cannot be hedged.' In other words, a hedger has to bear the risks involved in basis variations, since, he has no means of avoiding them. All he can do is to take into account the elements of basis and provide for them before making any commercial commitment. Up to now, the trade has not been able to devise any method of counteracting the risks involved in basis variations. It has also been made clear that even the 'on call' system is dependent on the basis and is not free from limitations; in spite of the fact that the system is a definite step forward on that of hedging in the cotton trade and is advantageous to the user. Apart from the basis risk, a hedger in India has to face an additional risk resulting from the present system of hedge contracts. We propose therefore to discuss the present system of hedge contracts in Bombay and to suggest improvements to relieve a hedger in India from the burden of the special risk.

1. CONTROVERSY OVER THE NUMBER OF HEDGE CONTRACTS

The hedge contracts¹ in India differ from those in America, in two main points, viz., (i) number of contracts and

¹Hedge contracts in India are nothing short of futures contracts abroad. However, the trade indulges in using the word 'hedge' contract because the term 'futures' has a derogatory meaning in India since it is associated with gambling in Ank-farak and Kutchha Khandi. See also p.64.

(ii) months of delivery. In American markets, there is only one futures or hedge contract for the whole of America's cotton crop. The contract is open for all the twelve months of the year and delivery against it can be given during all these months. The months for giving or taking a delivery are all single. So far as the number of contracts is concerned, we have in India not one but several hedge contracts for the whole of India's cotton crop. The contracts are neither open for all the twelve months of the year nor are the months for giving or taking a delivery all single. Bearing in mind these fundamental points of difference resulting from the peculiarities in the character of the American and Indian hedge contracts, it will be easy to follow the controversy over the number of hedge contracts in India.

Two Schools of Thought: Since the inception of a central organisation to control futures trading in Bombay, there have been two schools of thought on the system of hedge contracts: (i) Those who believe that there should be only one hedge contract for the whole of the Indian cotton crop, and (ii) those who believe that there should be as many contracts as there are varieties of cotton in India.

The advocates of the system of one hedge contract are the Government of India,¹ and the Bombay Millowners' Association.² The second scheme is adumbrated mainly by the brokers and traders.³ Thus, there are two extreme shades of opinion on the question, representing on the one

¹"As regards hedge contracts, the Government of India recognise that the ideal to aim at is that there should be, as in the Liverpool and New York markets, a single hedge contract." Government of India, Commerce Department, No. 6505, correspondence between the Chief Secretary to the Government of Bombay and Secretary to the Government of India—Better known as Mr. Innes' letter: 25-9-1920.

²"The ideal to be aimed at in all well established markets of the world is that there should be one contract open for the whole of the twelve months". Report of the Millowners' Association, Bombay, 1931, p.59.

³"In the opinion of my Committee, the number of hedge contracts should be increased to ten maximum and the growths tenderable under each of them should be narrowed." Representation to the Cotton Contracts Act Committee by the Bombay Cotton Brokers' Association; 1930, p.15.

hand, the buyers' point of view, and on the other, the standpoint of the sellers. The gulf between them is by no means narrow.

Historical Background: In the early days of cotton futures trading in India, there were three hedge contracts: (1) Broach, (2) Bengal and (3) Dhollera.¹ Each contract called for the delivery of one grade only. For instance, the Broach contract was for Broach cotton alone and did not include any other variety, that is, cotton grown in an area of about 40 to 50 miles from Ankleshwar to Dabhoi was regarded as the Broach crop. Similarly, the Bengal contract stood for the cotton from the United Provinces only. Dhollera was mainly for the long stapled cotton. In the beginning the buyer of a hedge contract knew definitely at the time of purchase that if he chose to take delivery, only the specific grade could be delivered. This form of hedge contract was particularly useful to dealers in actual cotton, since, it was employed to dispose of or acquire spot cotton. In 1917-18 there were five hedge contracts to represent the five principal varieties grown in India.² These contracts were as under:

1. Fully Good Machine ginned Bengals for 25th January Delivery.
2. Fully Good Machine ginned Khandesh for 25th January Delivery.
3. Fine Khamgaon Akola, fair staple 25th January Delivery.
4. Fine or Good Machine ginned Broach for 25th April Delivery.
5. Good Machine ginned Westerns for 25th May Delivery.

The Cotton Contracts Board increased this number in 1919 to seven with changes in names and basis, as follows³

- (1) F.G. Bengals, (2) F.G. Broach, (3) Fine Oomra, (4) F.G. Oomra, (5) Good Southerns, (6) Punjab/American and (7) F. G. Khandesh.

With the inception of the East India Cotton Association in 1922, however, the number of hedge contracts, was brought back to five by incorporating the Punjab/American into the Broach contract and dropping altogether the

¹Personal interviews.

²Report of the Indian Cotton Committee, 1919, p.205.

³Bombay Cotton Annual, 1919-20, p.40.

Khandesh. As time passed, the systems of classification and fixing of standards became more elaborate. This greatly limited the ability of an individualist to gain control over the deliverable supplies and in that respect the improvement was worth while. The contracts were widened and the deliverable supplies increased. As several qualities were deliverable at the option of the seller, it seemed only fair that some adjustment should be made to allow for variations in standards. This was complied with by what is known as the system of fixing differences. A particular grade or a group of grades was chosen as the basis. Should the seller find it desirable to tender one or more of the other deliverable grades, an allowance in price was made to compensate both the parties. Thus in one form or another, the five hedge contracts as they are today have been in existence for years, though the details of some of them have been changed from time to time.

One or several hedge contracts? Those who advocate the adoption of one hedge contract for all the varieties of Indian cotton maintain in the first place that, in the Bombay market, it is not possible for mills to effect a satisfactory hedge against forward contracts in yarn and cloth for which raw cotton has not already been secured. Secondly, under the group of several hedge contracts, a shortage of deliverable supplies against any one of them would raise prices high enough frustrating thereby its utility as a hedge contract.¹ But if there is only one hedge contract for all the groups of Indian cotton, failure of any one of them will not affect the price of the hedge contract. It is therefore advanced that the basis of the hedge contract must be wide enough to prevent cornering and squeezing or what is known as 'manipulation' by speculators. The third point raised against the system of several hedge contracts is that since there is a single hedge contract in all other leading markets of the world, our market should not lag behind in this respect. For all these reasons, they claim that the ideal to be aimed at should be the system of one hedge contract for the whole of India's crop.

¹For instance, the Oomra contract for January, 1932 was so squeezed owing to a short crop that its price at one time was quoted at Rs. 20 higher than Broach. The Oomra crop was a failure and the shortage of its arrival caused bears to cover their foreign sales of Oomra cotton at a great sacrifice.

No matter what form of new contract we may introduce in our market, it is certain that it would never constitute a satisfactory hedge because of the inherent short coming, as we have seen in the preceding chapter, of the very principle of a hedge contract in any market of the world. On the other hand, it appears that the greater the number of hedge contracts, the better for mills, as it would enable them to buy a contract closely approximating to what they have sold. For example, if a mill has sold yarn of $6\frac{1}{2}$ counts, they could buy the Bengal contract from which this quality is ordinarily produced and for 10 to 16 counts the Oomra contract will serve the same purpose. For higher counts the Broach contract can be availed of. If they could only buy a single contract, it would bear much less relation to what they have sold because, there would be cotton tenderable against such a contract differing in value probably to the extent of a hundred of rupees per candy and differences would be liable to wide fluctuations at varying intervals. Moreover, our enquiry in this connection goes to show that mills in India hardly use a hedge contract for hedging against purchases of cotton. They employ the system of 'on call' for the purpose. This indicates that a fair trial has not been given by the mills to the system of having several hedge contracts in Bombay.

Another argument in favour of one hedge contract is that "the contract must be wide enough to prevent cornering by speculators." When such a statement is made, the fact is lost sight of that the same thing happens in New York inspite of the maintenance of one contract for the whole of the American cotton crop. Similarly, in Liverpool there are also manipulations, corners and squeezes. Moreover, the experience of the last 20 years during which period attempts made by Messrs. Umar Sobani, Sangildas and others resulted in failures,¹ falsifies the plea. Further, when cornering took place our market was passing through abnormal times. Today, the E.I.C.A. ensures pretty well that a person who attempts a corner does not run away with the market and they have powers to knock

¹Sir Purshotamdas Thakurdas: Evolution of the Cotton Trade of Bombay: The Indian Textile Journal—Jubilee Souvenir—Jan. 1941.

the bottom out of his venture. They do see that no one is able to make a corner. In normal times, as a matter of fact, it may be said that there is not much chance of cornering the market. In answer to the third line of attack, the fact must be mentioned that the leading markets of the world do not follow the system of one hedge contract. Alexandria, for instance, trades in three contracts for different varieties produced in Egypt whose total crop on an average does not exceed a million bales. These three contracts have been based on three different and distinct varieties grown in Egypt. They would **not** have maintained more than one contract but for the fact that the spinners all over the world would not be able to make their purchases had there been only one contract for all the varieties grown in Egypt. Again, in Liverpool, there are a number of contracts to deal in various kinds of cotton which differ from one another in spinning value. They have the Empire contract for cotton other than American and at the same time, there are separate contracts for Egyptian Sakels and Uppers. The history of the establishment of the Empire contract itself shows that the best authorities in Liverpool are against having one contract for widely varying growths. Liverpool refused to have one contract for American, Indian and African growths. The claim that Liverpool has one contract for all kinds of cotton is therefore misleading. It will be noticed that all the arguments made by the advocates of the system of one hedge contract for a country like India fall to the ground. This confirms the contention of those who insist that there should be separate contracts for styles of widely different spinning values.

Conditions in India do not warrant the adoption of one contract for all the varieties: In order that the question of adopting the system of one or several hedge contracts may be settled once for all, let us further examine here the advisability or otherwise of the system of one hedge contract for all the growths of Indian cotton. At the outset it may be noted that the proposition bristles with many practical difficulties which cannot be overcome so easily. As things stand at present, there is a vast difference in the characteristics of several growths grown in India. The cotton crop of America has a uniform season. It begins

about August, and ends about March. In India, the cotton season varies from district to district according to its geographical position. At one place the crop is finished about the same time as it begins in another. Again, varieties of growths in India far out-number those in America. Hence, if there is a system of one hedge contract in India the unsaleable and unwanted cotton varying from low Bengals to Superfine Broach will be tendered. It will not then be a safe hedge and buyers will be scared away. Even mills will not be able to make use of it and in reality they will be afraid of it. If the mills who can use cotton for one or other counts are afraid, what about the traders who are not themselves the users. They will be still more afraid of such a contract for which they will not be ready to bid higher prices. No buyer would come to buy the contract in which he himself does not know with certainty what quality he is going to get. Such a contract would be only for the facilities of the seller who would sell it freely and would not find it difficult to tender. If such a contract is created, not only Indian short-sellers but the whole cotton world will come to sell their cotton in India either by way of speculation or hedging. What a huge pressure such a contract will be subjected to can easily be imagined. It will always keep the contract price depressed in parity with the foreign cotton thus putting the country at undue loss.

There is another difficulty involved in the adoption of a system of one hedge contract and that is, if there is to be one hedge contract some one style will have to be taken, as in America they have 'Middling', as a common basis. What style would make such a basis as representing all Indian cotton and its value is a point worth considering. The answer is that there is no such style in India as 'Middling' is in America which can represent the whole of the Indian cotton crop. Further, if the system of one hedge contract is adopted for all the different growths of Indian cotton, the calculation of the probable 'on' and 'off' will become a hazardous operation. The contract will be depreciated and the basis will have to be raised. Moreover, the trade at large thinks that they cannot have one hedge contract for all the varieties of Indian cotton crop.¹ It must

¹Personal talks.

not be forgotten that the success of any hedge contract system depends also on the attitude of the market. For instance, if one hedge contract was forced on the market and if the dealers refuse to trade in, the result will be that there will be no hedge contract at all and the trading will be confined to spot transactions only. It is therefore obvious that an impossible state of affairs might arise should every Indian quality be included under one contract. It will be noticed that for all these difficulties the system of one hedge contract will have its repercussions on the price structure of Indian cotton and the poor farmers will be made to suffer the most, because, it is the hedge contract quotation that forms the basis of the price offered to the upcountry cultivator. The fact is that we should not put more weight than the hedge contract can stand; otherwise, the effect will be to depreciate the price of Indian cotton. If the proposal of one hedge contract is adopted our cotton might sell materially below its intrinsic value. It may therefore be concluded that one hedge contract system is most unsuitable for a country like India.

2. EXISTING SYSTEM OF HEDGE CONTRACTS IN BOMBAY.

Endless correspondence, however, goes on between the Bombay Millowners' Association, and the East India Cotton Association since 1922 on the question of a system of hedge contracts and each body tries to uphold its own scheme. As a result, the position today is such that it satisfies none in the trade.

Present System: Let us describe here the existing system of hedge contracts in the Bombay market. Following are the five permissible hedge contracts at present:¹

(1) F.G.M.G. Bengal contract, fair average staple of the season including cotton from the United Provinces, the Punjab, Sind and Rajputana. The following are the standards for this contract: Of M.G. U.P., Superfine, Fine, Fully Good (Basis), Good to Fully Good (Half class off Fully Good.), Good. Of M.G. Sind, Superfine, Fine, Fully Good, Good to Fully Good (Half a class off Fully Good), Good. Of M.G. Punjab, Superfine, Fine, Fully Good, Good to Fully

¹Bye-laws of the E.I.C.A., pp.80-89, Schedule A.

Good (Half a class off Fully Good), Good. Of M.G. Rajputana, Superfine, Fine, Fully Good, Good to Fully Good (Half a class off Fully Good), Good. Cotton below the 'Good to Fully Good (half a class off Fully Good)' standard is rejected. Months of delivery: December/January, March, May, July.

(2) F.G.M.G. Broach contract, fair average staple of the season including cotton of the following descriptions, viz., Broach, Saw-ginned Dharwar, Coomptas, Uplands, Punjab/American, Sind/American, Surat, Navsari, Rajpipla, Dholleras, Kalagin, Cutch and Kadi/Viramgaum. The staple of Punjab/American, Sind/American, Dholleras and Kadi-Viramgaum tendered to be not less than 6/8", the staple of Navsari, Surat, Rajpipla, Coomptas, Uplands, Cutch and Kalagin tendered to be not less than 7/8". The following are the standards for this contract, viz.,

Of M.G. Broach	Super-fine	Fine	Fully Good Basis	Good	Fully Good to good	Fair
Of Saw-ginned Dharwar	"	"	"	"	"	"
Of M.G. Uplands	"	"	"	"	"	"
Of M.G. Coomptas	"	"	"	"	"	"
Of M.G. Punjab/American	"	"	"	"	"	"
Of M.G. Sind/American	"	"	"	"	"	"
Of M.G. Surat	"	"	"	"	"	"
Of M.G. Navsari	"	"	"	"	"	"
Of M.G. Rajpipla	"	"	"	"	"	"
Of M.G. Dholleras	"	"	"	"	"	"
Of M.G. Kalagin	"	"	"	"	"	"
Of M.G. Cutch	"	"	"	"	"	"
Of M.G. Kadi/Viramgaum	"	"	"	"	"	"

Cotton tendered which is below the 'Good' standard sample is rejected. Months of delivery: April/May, July/August.

(3) Fine M.G. Oomra contract, fair average staple of the season, including cotton from the Central Provinces and Berar. The following standards are prepared for this contract:

Of M.G. Berar, Extra Superfine, Superfine, Fine (basis),	Fully Good to Fine Half a class off fine
Of M.G.C.P. No. 1	do.
Of M.G.C.P. No. 2	do.

Cotton below the standard 'Fully Good to Fine' (half a class off fine) is rejected. Months of delivery are: December/January, March, May, July.

(4) F.G.M.G. Oomra contract, fair average staple of the season including cotton from Berar, the Central Provinces, Central India, Khandwa/Burhanpur, Khandesh and Kathiawar (Muttia). The following standard samples are prepared for this contract:

Of M.G. Berar, Fully Good,	Good to Fully Good	Good
(Basis)	(Half a class off Fully Good)	

Of M.G.C.P. No. 1	"	do.	"
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Of M.G.C.P. No. 2	"	do.	"
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Of M.G. Khandwa/Burhanpur, Superfine, Fine, Fully Good	Good to Fully Good (half a class off Good)	
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Of M.G. Central India	"	"	do.	do.	"
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Of M.G. Khandesh	"	"	do.	do.	"
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Of M.G. Muttia	"	"	do.	do.	"
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Cotton tendered which is below the standard 'Good to Fully Good' (half a class off Fully Good) is rejected. Months of delivery are: July and September.

(5) Good M.G. Southerns contract, including cotton of the following descriptions, viz., Westerns, Northerns (excluding 'red'), Bijapur, Bagalkote, Coompta, Miraj, Cambodias, Tinnevellies and Karungannis. The staple of Northerns, Coompta, Miraj, Cambodias and Karungannis tendered to be not less than 7/8". The staple of Westerns, Bijapur, Bagalkote and Tinnevellies tendered to be not less than 6/8". Provided that Coompta cotton not less than 6/8" may be tendered if the seller declares on his Delivery order "no premium claimed over basis" and similarly, Karungannis cotton not less than 6/8" may be tendered if the seller declares "no premium claimed over Tinnevelly." The basis is "M.G. Westerns Good." The following standard samples are prepared for each of the above descriptions: Fine, Fully Good, Good, Fully Good Fair, Good Fair to Fully Good Fair (half a class off Fully Good Fair.) Cotton that is below the "Fully Good Fair" standard sample is rejected. Months of delivery are: May/June, August/September.

Of the five, the last two contracts have not been popular in Bombay.¹ The popular contracts are therefore only three in number. They are in order of importance, Broach, Oomra and Bengal.

Complaints Against the Present System: One hears of several complaints against the present system of hedge contracts in Bombay. These complaints may be divided into three groups: (a) Those of the Millowners, (b) of the Agriculturists and (c) of the Trade.

Taking first the Millowners' complaints, their main objection is that in certain months of the year, they are unable to make hedge contracts which can be used against their purchases of cotton or sales of cloth, since, there are only two or at the most three positions in which a particular contract is traded in. For instance, Broach has only April/May and July/August deliveries and Oomra or Bengal has December/January, March, May and July. Their second objection is that when one contract expires no new contract is available to transfer the hedge. Hence, the millowners want a contract open for all the twelve months of the year with a continuous character. So far as the agriculturists are concerned, their principal objection is that under the present system, they do not get a proper hedge against their cotton, since, all growths do not come under

Table showing cotton bales tendered against each hedge contract.

Year ending 31st August.	F.G.M.G. Bengal's.	F.G.M.G. Brooch.	Fine M.G. Oomras.	F.G.M.G. Oomras.	Good M.G. Southern's.
1930-31	34,900	71,700	63,700	—	—
1931-32	28,800	35,400	20,800	—	—
1932-33	26,200	62,600	40,100	—	—
1933-34	53,500	10,400	62,000	—	—
1934-35	77,200	69,100	56,700	—	—
1935-36	26,550	2,63,800	16,050	—	—
1936-37	17,000	76,700	52,450	—	—
1937-38	8,700	1,32,200	19,850	—	—
1938-39	5,800	60,200	8,700	—	—
1939-40	29,150	61,600	31,050	—	—

*Compiled from Bombay Cotton Annuals.

one or the other popular hedge contract. Their objection is that the growths which are not included under any of the three working hedge contracts realise less values than others.¹ Hence, what they want is a system so devised as to include each and every Indian style under the working hedge contracts. As regards the trade, their main objection is that under the present system the delivery period is extended over two months which unduly depresses prices and at the same time gives to a seller an undue advantage of delivering for 55 days. For instance, under Broach for April/May or July/August and Oomra or Bengal for December/January delivery can be made from the first day of the first month to the 25th of the second month. They point out that when in a sister market like Karachi, they have got the monthly delivery system, why should we not have the same? Secondly, the present contracts are very wide making it thereby difficult to accept delivery in the fulfilment of a contract. Thirdly, the contracts are not balanced and as a result, the double pressure of hedge and speculation falls on one contract, namely, the Broach which is regarded as the price-barometer for Indian cotton. This uneven pressure widely depresses the Broach price resulting in the price depression of all other varieties in general. What the trade therefore needs is that months of delivery should be all single and the contracts framed in such a manner as to make concentration of trading proportionate to all.

Measures Taken by the E.I.C.A.: Taken together, all these complaints indicate that there is something wrong with our existing system of hedge contracts in Bombay. This fact is recognised and duly appreciated by the E.I.C.A. and they have taken steps to put it in order.² The Board is giving due consideration to the system of hedge contracts and a sub-committee has been appointed to submit their proposals

¹"The reason why it is necessary for every growth to come under hedge contract is that one cannot be satisfied with the differences that would be fixed between untenderable cotton and the cotton which is tenderable under the hedge contract." Personal interviews.

²"Your Directors had again under consideration during the year the question of the existing hedge contracts which they are convinced require adjustments." 18th Annual Report of the E.I.C.A. for the year 1938-39.

to the Board in due course.¹ The E.I.C.A. has adopted the following principles for revising the existing system of hedge contracts:

- “1. That the contract should be such that it ensures to the cotton grower the price that he would be entitled to in the international markets.
2. That it is not possible to frame one contract which can carry the whole burden of the Indian cotton crop, and
3. That if in devising a contract it may not be possible to settle the same quite definitely, the benefit of the doubt would have to be given to a narrowish contract in comparison with a broader one.”

The question of universal standards for Indian Cotton: There is one more point to be considered in connection with the existing system of hedge contracts in the Bombay market and that is the question of the preparation of standards. The standards should be on a certain basis and uniform all throughout the year as well as for ten to fifteen seasons. For instance, ‘Fully Good’ or ‘Superfine’ should not change every year, but must be constant. The best thing in a country like India which has to sell cotton in foreign markets is to have uniform standards for our cotton or what is known in America as “Universal Standards”. In America no one is allowed to sell cotton except by “Universal Standards”. Liverpool and Bremen had to throw off their standards and accept the “Universal Standards”. In India, standards for Indian cotton were prepared by the E.I.C.A. and the Karachi Cotton Association for their respective markets. These standards were different in respect of the same varieties of cotton and the result was a keen competition between the two markets. This tended to injure the interests of the cultivators. It was therefore decided in 1933 that the Indian Central Cotton Committee should take up in co-operation with these associations the question of having “Universal Standards” for Indian cotton, applicable in

¹“They have submitted an interim report to the Board.” 19th Annual Report of the E.I.C.A. for the year 1939-40.

India.¹ Since then the matter is under consideration of the respective associations. But they have not adopted the "Universal Standards" for our cotton as the basis for their own standards. In consequence, at present the position in India is that the standards prepared by the E.I.C.A. for the Bombay market materially differ from those prepared by other markets and hence, what is passed in Bombay may be rejected in Karachi or Madras and vice versa. It is therefore urged that the E.I.C.A. should adopt the "Universal Standards" for Indian cotton as basis for their own standards for all hedge contracts.

3. REMEDIES.

The question is whether the contract should be broadened or narrowed. Again, what size of the contract will be in the interests of both, the seller and the buyer? The theory of a hedge contract is that it should be as narrow as possible, i.e. it should contain products of as nearly equal quality as possible, and that it should be wide enough to make a corner in the contract normally impossible. These two requisites are difficult to be satisfied. If the contract is too narrow it is exposed to corners and squeezes; and if too wide to include cotton of inferior quality, the buyer will be scared away and the result will be that the price-level will remain depressed. It should therefore be considered at the outset whether the contract is for the benefit of the buyer or of the seller. In fact, it should be attractive to both. The ideal contract is the one that reflects at all times the value of actual cotton.

Since the present scheme is not satisfactory, let us consider whether the contracts be widened or narrowed down. The general opinion is that the contracts should be widened. A narrow contract is regarded as a bad contract in many respects by everybody. The seller may be squeezed in a narrow contract. It is therefore not a good contract for the party at stake. A narrow contract has other drawbacks. The crop is at

¹The Indian Central Cotton Committee at its meeting held on the 23rd February, 1933 passed the following Resolution: "That steps be taken to introduce "Universal Standards" for Indian Cottons for use in India itself and the local sub-committees be instructed to prepare a scheme for the purpose in conjunction with the various trade Associations."

the mercy of the weather and a catastrophe may happen. It is therefore in the interests of the trade in general—not of individuals—to make the contracts sufficiently broad. The first and foremost question is whether all the cotton grown in India must be included in one or the other contract. There are at present a great many kinds of cotton which are left out and the question is whether these varieties should be made tenderable against any one of the hedge contracts. That is the fundamental point. Can a system be devised in such a manner that cotton grown in every corner of India even to the minimum extent can be tenderable in the contract? Here is the most practical difficulty. The reply can only be that such a scheme cannot be devised.

An example of a well-constituted and yet a broad contract is furnished by the American contract which takes care of both the current crop and the previous year's carry-over. In spite of this the fact remains that there also certain varieties are not tenderable and all kinds of cotton are not included in the contract, since, the contract signifies that "nothing below Middling shall be tendered" which excludes nearly 20 to 25% of inferior varieties. The existing system in India is not satisfactory to all sections of the trade, because, the interests of the consumer and the producer are quite different. The producer would always like to have a contract with a specific single growth tenderable against it, while the consumer would like to have a contract against which as many varieties as possible are tenderable so that he can buy his requirements cheaply. For instance, the present Broach contract is considered by some as being too broad to discourage buyers which is against the interests of the growers. But any artificial demand will not, in any way, benefit the growers. The harm done by the bear raid is equal to that done by the bull raid. Therefore, the contracts should be framed in such a manner that they must not be exposed to either bear or bull raids. The proper functions of a hedge contract are to protect the interests of purchasers, sellers, growers and traders. What is wanted is a hedge contract which is indicative of the average price of our cotton. The correct thing therefore is not either to broaden or narrow the hedge contract but to remove from it any variety

which artificially depresses prices and frightens away buyers from it.

Suggestions for Improvement upon the present system of hedge contracts considered: The next point is how many contracts the Bombay market can deal in? It is difficult to form an ideal system of hedge contracts for a country like India. It is certain that all the important growths should be made tenderable under the existing three hedge contracts because the trade does not want to work more than three.¹

(a) **Number of Hedge Contracts:** We have received from the trade in connection with the system of hedge contracts various schemes and suggestions out of which only two (because they are important and deserve consideration) may be noted in order to arrive at the correct solution. The first scheme is that it is natural to divide Indian cotton into three particular divisions, viz., (1) Short staple, (2) Medium staple and (3) Long Staple.² Accordingly, there should be three contracts. The details of this scheme are as under: (1) Broach to be a long stapled contract and to include all growths having staple of $7/8''$ and above, (2) Oomra to be a medium stapled contract and to include all growths having staple of $5/8''$ to $13/16''$ and (3) Bengal to be a short stapled contract and to include all growths having staple of $1/2''$ and below. It is claimed that these three contracts include all Indian cotton according to merits.

The second scheme is that the Indian growths should be divided into the following groups, each forming a single separate contract: (1) Long staple, (2) Fair staple, (3) Oomra and (4) Bengals. The details of the scheme are as under: (1) A stapled contract to be created embracing all staple varieties with $15/16''$ and onwards. Since this will take away all cotton of higher staple from Broach, (2) a fair staple contract to be created with the inclusion of C.P. No.1 and all other varieties having $3/4''$ staple, (3) the Oomra contract excluding C.P. No.1 to include Fine

¹"There is a reasonable concensus of opinion among all sections of the trade that there should be three hedge contracts to cover three main divisions into which the cottons of India can be distributed." Report of the Wiles Committee: 1930, p.7.

Table showing the character of the Indian cotton crop.

Khandesh, Fine Central India and Fine Moghlai varieties, and (4) The Bengal contract to remain as it is.

Both these schemes are subject to certain limitations. First of all, in making the division of Indian cotton according to these schemes, the real trouble would arise with regard to the Broach contract which is popular all over India as well as outside the country. The Bengal contract is made up of short staple varieties and hence, should present no difficulty in framing it. Oomra and Khandesh may safely be put under one contract. But it is very difficult to fix up the hedge contracts according to staple, because, many growths in India have mixed staples and a constant change in the staple length takes place from year to year in certain styles. There is a further difficulty of measuring the staple. Variety in the length of staple

Description of cotton	1937-38 (In thousand bales of 400 lbs. each)	1938-39
Short staple, below 7/8":		
Bengals	1,347	1,035
Oomras	1,395	1,152
Central India	217	252
Broach (Part)	262	223
Dholleras	493	337
Coomptas and Upland (Part)	17	23
Warangal and Cocanadas	24	21
Bijapur, Bagalkot Jowari & Westerns (Part)	147	155
Chinnapathi, Salems, Comillas	88	52
Total short staple, Quantity	3,990	3,250
Percentage on 'total all supplies'	69	63
Medium and long staple, 7/8" and above:		
Americans,† Punjab and Sind (Staple 1" and above)	178	227
Americans, Punjab & Sind (Staple below 1")	773	804
Central Provinces & Berar Verum	25	22
Hyderabad Gaorani	142	129
Broach (part) and Surti	134	183
Westerns (part) and White & Red Northerns	32	69
Coompta and Upland (Part)	138	185
Tinnevellies (including Karungannis)	151	132
Cambodias	216	119
Total medium & long staple: quantity	1,789	1,870
Percentage on 'total all supplies'	31	37
Total all staples	5,779	5,120

*Compiled from Annual Report of the Indian Central Cotton Committee for the year ending 31st August, 1939.

†Includes "Punjab-American 289F", Sind-American 289F (or Sind-Sudhar)" and "Punjab/American 289F/43."

exists even in the same type of Indian cotton. Hence, it is doubtful whether the trade would accept either of the above schemes.

The weakness of the present system of hedge contracts lies in the fact that for all intents and purposes there is only one active contract in Bombay, namely, the Broach to take care of speculation and the whole Indian cotton crop.¹ The Oomra contract is balanced well enough but it comprises few and essentially export styles. As these styles are taken up and shipped the contract registers a progressive tightness which often develops into a mild corner, or what is known as 'squeeze' with the result that growers and stock-holders of Oomras are shy of using it freely as a hedge. The Bengal contract is very narrow as most of the Bengal cotton is now stocked in Karachi and is little used as a hedging medium in Bombay. The Southerns contract is badly constructed since most of the styles comprising it are consumed locally and do not come to Bombay. In consequence, this contract has met with a natural death since its inception. The net result is that the Broach contract receives a double pressure of both speculation and hedging and is often rendered subject to fluctuations unwarranted by the existing market conditions. Needless to add that it is this absence of a proper balance of hedge contracts in Bombay which is the source of all troubles. It follows that the spirit underlying the reforms in the present system should aim at such a reconstruction that would bring an even distribution of both the speculative and hedging interests and eliminate the possibility of over-trading in any one contract. It is thus the faulty construction or 'technique' of the present system of hedge contracts in the Bombay market which is the real cause of depreciation in a hedge contract.

(b) Period of delivery: Another point that demands improvement refers to the period of delivery. In the Liverpool and New York markets all the twelve months are traded in. If deliveries are made and accepted every month in India it will satisfy all bona fide traders. It is certain that operators would not deal in those positions

¹The concentration of trading under the three live contracts is: 75 per cent to 80 per cent Broach, 12 to 15 per cent Oomras and 4 to 6 per cent Bengals.

which are not likely to encourage trading and such months will not be active at all. Is there any objection to decide that every hedge contract can be traded in every month of the year? The trade may take it as it suits it.¹ We have had many suggestions that the delivery months should be increased and single months for all contracts should be adopted, and we see no reason why this should not be carried out by the authorities.

(c) **Right of buying 'on account':** Next in importance is the reform of restoring the right of buying 'on account' of defaulting sellers. This is the most important point in regard to the system of hedge contracts. Under the present rules of the E.I.C.A. this right of the buyer is taken off.² The trade does not approve of this. Hence, the instituting of the right of buying 'on account' should go a long way in improving the present system of hedge contracts.

4. CONCLUSION.

Our examination of the problem of hedge contracts in India has led us to conclude that if the system of hedge contracts is to discharge its functions properly, the existing hedge contracts in Bombay should be reconstructed. The revision of the present system will have to be thorough in all its aspects, including the periods of delivery.

¹"We recommend that in future forward trading should be for single months and for any month of the year." Wiles Committee, p.8. See also an Interim report submitted to the Board of the E.I.C.A. by the sub-committee on 'Hedge contracts' recommending single month delivery periods, etc. Bombay Cotton Annual No. 21, p.25.

²Bye-law No. 60.

CHAPTER IX.

SPECULATION

SPECULATION in its broader sense of taking risks in the process of buying and selling for profit has been in existence for centuries and is said to be as old as the history of mankind. It is carried on both in 'spots' and 'futures'. Speculative system should therefore be divided into two types: (1) Unorganised speculation or speculation in spot and (2) organised speculation or speculation in futures. Our immediate concern is with speculation in futures as opposed to that in spot cotton. Hence, we need to consider the definition and character of organised speculation. This will enable us to examine the role of speculation in the distributive system and to scrutinize its effects upon the price-level of an agricultural commodity like cotton.

1. GENERAL

Difference between speculation in spot and futures: The most conspicuous point of difference between the organised and unorganised speculation lies in the fact that in a futures market the commodity and the methods of buying and selling it are so standardised that it is possible for an individual to buy and sell without taking the trouble to learn the technique of judging the qualities, and other details which are necessary for operating in a spot market. Other important points of difference between the two systems are (a) short-selling is very much restricted in the case of speculation in spot, (b) turnover under spot is relatively slow, and (c) speculation in spot requires proportionately more capital than that required in organised speculation. Since payment as well as delivery are postponed, heavy trading on a relatively small amount of capital is possible under speculation in futures. Thus, it is easy to see why a futures market attracts a great number of dealers who may be connected with the trade in no other way.

Definition of Speculation: The word speculation is defined as the purchase or sale with the expectation of pro-

fiting "by anticipated but conjectural fluctuations in price."¹ Its primary condition is that the fluctuations in price which form the basis of speculative transactions must be 'conjectural'. Speculation thus denotes a business venture involving unusual risks for the chance of securing large profits as distinct from ordinary earnings. The two principal elements involved in speculation are (1) chances of making an extraordinary profit and (2) equal chances of incurring huge losses. Since both these elements are intermingled, the former cannot be availed of without accepting the latter. Those who neither desire nor mean to speculate will let go both of them by entering into offsetting transactions, and depend only upon the merchandising returns arising out of the ordinary course of business. Accordingly, all those who run the risk of adverse price movements with a view to making a profit from a favourable change in price variations should be regarded as speculators. For instance, a grower who expects a rise in price and does not sell his cotton runs the risk of getting lower prices, that is to say, he is speculating in cotton. Similarly, a manufacturer who buys at a fixed price his requirements some months in advance without entering into orders either for manufactured goods or futures, runs the risk of an adverse change in prices and is speculating in cotton with a view to secure profits should the prices advance. In the same way, a merchant who buys cotton upcountry and does not make the offsetting transaction in futures runs the risk of price variations which may be for or against him, is also speculating. A speculator in cotton may thus be defined as a person who ostensibly buys and sells cotton or cotton futures for the main purpose of profiteering from uncertain fluctuations in prices.

Forms of Speculation: So far as the relation of speculation with marketing is concerned, the trading operations of speculators resolve themselves into two principal groups: (1) constructive and (2) destructive. Operations based on intelligent appraisement of market conditions affecting cotton may be included in the first group, while those which are based largely on a foundation of mob-

¹Webster's New International Dictionary.

psychology should fall under the second group. Destructive speculation is hardly based on rational appraisement of present and prospective conditions affecting supply of and demand for cotton. Such transactions may have originated either from a group of inexpert speculators or professional traders. They tend at times to overbalance the activities of the more skilful and expert speculators. The presence of such operators in a market and their dealings should distinctly be considered as destructive.

Speculation and Gambling: In any form of speculation the only way in which an operator can reasonably expect to make a profit is by way of securing a difference between the prices of buying a commodity and selling it. This skill may arise from special training, unusual ability to judge the trend of the market, or from an access to special sources of information not available to all those who are prospective dealers. As a result, the speculative undertakings take a variety of forms varying between the two extremes. On the one hand, speculation may shape itself into a form of most legitimate and highly desirable trade activity and on the other, it may degenerate into gambling. There is indeed a close kinship between them. Speculation occupies the border territory between conservative investments and gambling.

Some people maintain that speculation and gambling are one and the same form of activity. Their contention is that there is no apparent difference between the two. Of course, it is very difficult to draw a line of demarcation between legitimate speculation and gambling, because, it is difficult to state where speculation ends and gambling begins. Gambling is a vague term which is used by different people in a different sense so that it is difficult to define it. However, it may be noted that so far as the speculator is governed by rational calculations based on factual data the transaction is essentially commercial. When he buys or sells simply in the blind hope that the market will turn his way it is gambling. A contract in futures is an obligation, enforceable at law, to deliver or accept and pay for a stated quantity of cotton. A person may actually deliver the cotton or receive it, or he may step out of the transaction and never handle a bale of cotton. Nevertheless, he is for the time a part of the

distributive system. A speculator acquires commercial rights and duties; a gambler acquires neither.

The fact that like gambling speculation depends on uncertainties tends to cause the two words to be used indiscriminately. But there is one point which should be borne in mind in this connection. In every gambling transaction there are two or more parties and some one must win what others must lose. This is not the case with speculation. For instance, suppose the price of the Broach April/May futures contract stands at Rs. 225 and A buys 100 bales. When the price goes up to Rs. 230, he sells the 100 bales to B who in turn may sell it to C at Rs. 232. C may get the chance of selling the same at Rs. 235 to D who may still be able to make a profit due to a continuous rise in prices by selling, say, at Rs. 240/- to someone. Assuming that A had bought from a person who purchased at Rs. 230/- and was obliged to sell at Rs. 225/- thus making a loss of Rs. 5/- per candy in this transaction, it is certain that only one person has lost in the course of this chain of speculative transactions. But it may happen that even the original seller might have bought at a lower level than Rs. 225/- and in that case, there would be a series of operations with all profits and no losses to any one. The case of gambling is therefore not at all analogous to that of a sale of cotton by a speculator at an increased price. In the instance cited above, there has been an actual increase in price to which probably the speculator has contributed by the responsibilities he shouldered during the time he was a party to the contract.

Referring to the economic difference, a speculator assumes the risk that already exists in the very nature of marketing a commodity, while a gambler joins with others in creating a situation out of which a risk develops. Each transaction of buying and selling cotton necessarily involves some risk while betting merely on incidental results of a particular contest is the assumption of a risk that did not exist before a bet was made. Thus a gambler creates his own risk but a speculator merely assumes the existing risk. Again, the detailed nature of the work done by a speculator far removes it from the realms of the mere staking of money on an artificially created risk.

of some chance event. He makes an intellectual examination of data collected and searches out the trade information likely to tell upon a given market. He bases his individual opinion on reasoning which takes the form of a prolonged and systematic analysis. In short, speculators form a class of experts whose chief business is to strive, discover and foresee every event that has some bearing on prices. Speculation presupposes intellectual efforts while gambling blind chance.

2. THE ECONOMIC ROLE OF A SPECULATOR

In so far as the process of marketing an agricultural produce is concerned the fact universally acknowledged is the element of risk always present in it. This point is better appreciated when it is realised that a small change of annas two per candy in the case of Indian cotton means Rs. 6/4 per 100 bales and a change of one point per lb. in the price of American cotton in the U.S. equals 5.00 dollars or in case of Liverpool £2. On a stock of five million Indian bales or ten million American bales, this amounts to a rise or fall of Rs. 3,12,500 or 5,00,000 dollars respectively. Fluctuations of Rs. 10 to 20 per 100 bales, and 50 to 100 cent points in the American market and 20 to 40 penny points in the Liverpool market over a period of few weeks are common. It amounts to a tremendous rise or fall in the price and affects the aggregate value of cotton realised by the producing countries like India, the U.S.A., etc. Formerly, a merchant had to assume herself the risk of changes in prices. But the market being local the risk was comparatively small. With the development of world markets he was called upon to bear an increasing risk. As the speculative element in marketing became more important the burden increased in its magnitude. Those who pursued the marketing business were hardly prepared to face it. A distinct class of traders known today as speculators was therefore needed to relieve the producing, merchandising and consuming interests of the speculative element of their business.

Functions of Speculation: The main function of the speculative class is to be always ready to take over or deliver the commodity at an established market price. To bear the burden of inevitable risks involved in marketing is the chief justification for the existence of speculators. The

speculator's profit depends upon the accuracy with which he can forecast market conditions. With this end in view, he organises and elaborates a system to get advance information. Intelligent speculation generally tends to afford the non-speculative merchant, producer and consumer a basic price upon which to make their future arrangements in actual commodity. The economic functions of speculation are (i) to localise the merchandising risk among the speculative class whose special function is to bear it, (ii) to relieve producers and consumers from carrying the whole year's stock by enabling the former to convert his crop promptly into cash and the latter to supply himself with raw material as his periodical needs may require without the prices being unduly enhanced, and (iii) to reduce the cost of distribution of a commodity to a minimum.

Acting as a Buffer: It is a professional dealer who really acts as a 'shock-absorber' in the trade. He is said to be playing a vitally important role by bearing the risk that others cannot afford or dare to assume. When buyers are scarce during the marketing period his action assists materially in carrying the weight of the crop, for, he shoulders the greater part of risk resulting from price movements. On the other hand, when buyers are numerous and sellers scarce, he performs the very function of a seller and satisfies the present demand. The importance of this class can hardly be overestimated. The speculative class is said to be the best fitted to bear the risk inherent in marketing the commodities. He bears the burden of risk without any corresponding hedge against it. He may therefore be described as a buffer between the two extremes in a distributive chain of producing and consuming interests.

Providing a Ready Market: The next important service rendered by a speculator lies in the fact that it is he who is always ready to assume the role of the requisite other party in a hedging transaction. It is he who provides a ready market at any moment to any operator in futures. In fact, a speculator helps the market to function smoothly. Speculative operations are in large measure necessary, if the cotton market is to maintain continuous and stable conditions. They make the market broad and

mobile. The ease with which a deal can be put through is the most important and singular service performed by him to the trade in general. He provides what is known as 'liquidity'.¹ Without a speculator the element of liquidity will be lacking and the market will not be able to fulfil its real function. If there were no speculators, one would not be able to buy or sell big quantities of cotton for future delivery. A speculator acts as a buyer and seller at a comparatively small cost. If this body of shock-absorbers is withdrawn, the market would be rendered not only dull but narrow. It would lack in continuity. Had it not been for this continuous character, the most important function of a futures market, namely, hedging, would be hindered to a considerable extent, since, there would be a difficulty in finding the requisite other party for hedging purposes. The force of hedge buying or selling is absorbed by speculation without causing any undue shock to the market. The presence of speculators including jobbers, floor traders, scalpers and others render it easier for bankers and financiers to finance the movements of produce at every stage from a producer to a consumer. Thus by standing ready always to buy or sell, the class of speculators provide a ready market with all the advantages resulting therefrom to both producers and consumers.

Discounting the Future: Another important service of the speculative class is that it generally tries to forecast the trend of probable prices. In other words, speculators discount the future long before it would otherwise be realised by the general public. Their fortune lies in foreseeing the point at which price-making factors are going to find their focus. The speculators are concerned with facts and their interpretation with respect to the future course of prices. All known influences brought by the informative service to the attention of many are given careful consideration by them in anticipating the future trend. This serves to discount the future. It is said that a speculator by reason of his temperament, special training and experience is competent to judge price trends. He translates his opinion and beliefs into the form of ope-

¹The term 'liquidity' means that the commodity may be sold instantaneously and in any amount and turned into cash at any moment.

rations in which the probable effects of his judgment of the future trend of prices are reflected. Further, by means of their ability to forecast prices for cotton to be delivered at different times in future, they direct the investment of capital into the most profitable channels. As a class, the speculators by means of specially collected trade information and statistical data are in a better position to discount the future some time before favourable or unfavourable news are published. The commodity often sells off when good news come out and not infrequently holds firm when unfavourable news are made public. This is attributed to the fact that the development has been discounted in advance. The effects of favourable or adverse developments is thus spread out over a period of time. The distant positions of a futures contract serve as a guide to opinion as to what price will be after some time and the contracts in a spot market are made upon the basis of these expectations. The mere presence in the market of a group of traders who have formed opinions as to the future of prices and will buy or sell in accordance with their beliefs is a constant assurance of orderly adjustment of prices. In this way, by its watchfulness and use of both official and other information including statistics, the speculative class discounts the future, prevents panic, and spreads over a longer time the consequences of unexpected news, either favourable or adverse.

Regulating Consumption: As a corollary to the preceding service, speculation regulates the rate at which the year's crop is consumed. Each season's crop be it large or small should be adjusted to the year to which it applies. Speculation by its forecasting service tends to accomplish this. By forecasting the prices of cotton to be delivered in future, the speculator exerts an effective influence in regulating the consumption of the crop. This in turn is rendered possible by the collection of statistics and trade information both officially and privately for the current as well as past so many years. For instance, if the figures relating to the visible supply of Indian cotton plus the carry over and other relevant statistics make a total supply of our crop unusually low, it is likely under normal conditions that the prices will show an upward tendency. This higher level of prices will decrease the rate of consump-

tion. Similarly, if a grand total figure of supply is unusually large, it may be expected, other things being equal, that prices will decline and the result will be an increase in the rate of consumption. Since price is the prime regulator of production and consumption, the discounting service of the speculative class is mainly held responsible for regulating the output and utilisation of the crop. The movement of prices brought about by the forecasting service indirectly benefits the trade by way of regulating consumption of the available supply so that each year's crop whether large or small just happens to meet the needs of the consumer.

Creating time and place utilities: Other important services rendered by the speculative class are those of creating time and place utilities. Because the speculator supplies contracts for the delivery of cotton in future, he is the creator of what is theoretically referred to in economics as 'time utility.' Similarly, because he moves cotton from one place to another by buying where it is cheap and selling where dear, he is regarded in the same sense as the creator of "place utility". Moreover, he is said to hasten what would otherwise be a tedious process by smoothening difficulties in the way of necessary movements of cotton, from the field to the factory. He ensures that cotton shall find its own way from a place where it is not needed to a place where it is badly required. Thus by straddling he keeps prices in level between different markets.

Consideration of a speculator's remuneration: For rendering all these services what return does the speculative class expect ? What is the aim of a speculator is a question with which one gets puzzled so often. It is not infrequently answered that the aim of the speculator is to make money and the services rendered by him are the by-products.¹ A speculator as an individual is out to make money and not to serve anybody. The speculator who correctly foresees the trend of events profits by his judgment and promotes the necessary re-adjustment of prices at the same time. All speculators buy when they think that cotton is going to advance and sell when they see the coming decline. Their purpose ostensibly is to pocket the

¹Replies to Questionnaire.

differential gains. Each trader operates in the hope as well as confidence of being a winner and some are gainers for a period of time while others are losers. It is pertinent to inquire whether speculators make or lose money on the whole. The common opinion in this connection points out that in the aggregate they neither put money into the cotton trade nor take out of it.

It may then be asked what is the source of income to speculators? One source as suggested by some economists consists of the small losses incurred by hedgers.¹ The hedger's loss is something like premium money paid for an insurance against heavier losses. Since the speculators are described as underwriters or insurers and the hedgers as insured, it is but natural that the insured should pay the premium to the insurer. This small loss incurred by genuine dealers is, however, a variable phenomenon and at times may largely be offset by similar gains in the opposite transactions. It therefore cannot form the main source of remuneration to the speculative class. It may further be inquired here as to what should be the principal source of his income. Since no statistical data on the point are available, it is difficult to get any enlightenment on this particular aspect of the subject. It may, however, be said that the main contribution comes probably not from producers, consumers or genuine dealers but from the very many small speculators drawn from the 'general public.'² Generally speaking, these small dealers who buy and sell on the futures markets are neither close students of the situation nor familiar with conditions of supply and demand. Such outsiders possess neither good judgment nor keen business sense. Their activities are influenced more or less by tips and rumours rather than by keen analysis of market conditions. Hence, in the long run this class mostly loses and that brings some money to the professional speculators. Another source of remuneration to the speculative class is an occasional failure of a big specu-

¹The Economic Journal: F. Lavington, The Social Interest in Speculation, Vol. 23, p.40. See also Vol. 44 Stewart Blair, The Profits of Professional Speculators, p.415. See also Vol. 33, pp. 428-30 and 579-81: Discussions on the profits of Speculators.

²Personal Investigation and see also J. G. Smith: Organised Product Markets: 1922, p.103.

lator. He may misjudge the market and in consequence pay a heavy toll for his error. Mistaken speculators are penalised with the utmost severity. The amount they are called upon to pay makes the fund for others.

3. SHORT SELLING

The trading on a futures market takes the form of either first selling and later buying or first buying and later selling. The latter practice is common to both spot and futures while the former is mainly confined to speculation on an organised market. Traders on the exchange naturally fall into two classes representing the supply and demand forces. In the language of the exchange they are called 'bulls' and 'bears'.¹ The 'bear' will express his opinion if he thinks that the price-level is higher than what it should be by 'selling short'. Selling cotton without in hand with a view to buy back later at a lower price is 'short-selling'. The reverse of this is 'long buying'. The only difference between taking a long position and a short position is that in the first case a person buys first and sells later while in the second case, he sells first and buys later. In both cases, there must be a purchase as well as a sale.

Short-selling and total turnover of futures: Because a speculator when he thinks that prices are higher than what they ought to be comes forward and makes short-sales, it is popularly thought that he increases the turnover in a futures market for his own advantage. It is true that a short-seller is one of the factors making the huge total of the sale and purchase of futures contract but there are other factors as well. For instance, it may happen that a seller of cotton for future delivery has got the commodity in his possession and enters into a hedging sale as protection. Under no circumstances can this be regarded as a speculative short sale, although his position in the

¹A bull is a person who anticipates that the price will rise before he is called upon to accept delivery of the goods. This gives him an opportunity to sell at a profit before that date. A bear on the other hand, is a trader who anticipates that the price will decline before he is called upon to deliver the goods he may have sold. This gives him an opportunity to buy at a profit before that date.

market appears as that of a short-seller. Again, there is no means of ascertaining whether a short-seller possesses cotton or not. It is equally difficult to decide whether a particular short sale is meant for speculative or hedging purposes.

Apart from this, the common argument that cotton is sold in a futures market so many times the actual crop in a country like India is erroneous in the sense that it gives the picture of one side only. The fact that cotton is also bought in the same market so many times the actual crop is lost sight of. For example, when 100 bales of Broach cotton are sold by an operator, he ordinarily buys them back as soon as the price movements tend to favour him so that a small differential gain may be pocketed. He thus buys and sells or sells and buys for a number of times in a day, week or month. In the course of his dealings he goes on adding to the total turnover of futures contracts. The volume is also increased by a merchant who uses futures against spot transactions. Similarly, a spinner, factory-owner, shipper and various other interests connected with the trade employ futures either for one purpose or the other and add to the total turnover of dealings in futures. Further, a dealer may find it necessary often to change the position of a futures contract e.g. from Broach April/May futures to Broach July/August futures contract. This changing of positions is a new transaction in futures and goes to increase the total. In the same way, 'badla' or straddling also adds to the volume. Now the fact should never be lost sight of that every hedger, stradller or speculator who might have sold a certain quantity has an obligation either to buy back before the due date of a futures contract or tender the cotton contracted for. A volume of futures contracts in any one year should therefore be much greater than the total out-turn of the crop which is made the basis for futures. In the absence of any statistical data relating to the total turnover of futures contracts made upon the East India Cotton Association or any other futures market in India, it is difficult to give exact figures showing the volume of futures against that of the actual production of cotton. We have received several estimates in this connection. The estimates vary in figures, but the volume of transactions in futures con-

tracts in India in any one year cannot be less than 15 times the total volume of our crop.¹

Function of Short-selling: Since every short-seller is a potential buyer, the function of short-selling may be said to cushion the market from run away prices in either direction. A market without a short-seller might become a place of wide and violent price swings. The presence of a short-seller checks such wide fluctuations either upwards or downwards, by selling in the first instance and covering in the latter. At times, he spends a lot of money and energy to collect relevant data with a view that he may be able to judge more correctly the probable trend of the market. Short-selling enables dealers, manufacturers and shippers to enjoy the full benefits of a futures contract by making it possible for them to hedge their trade profits against losses through price fluctuations.

Short-Selling and Prices: It is not uncommon to hear in India from the producers' quarters that short-selling in a futures market like the E.I.C.A. tends to depress the price of their produce. If it were not for the enormous volume which futures trading has reached in Bombay it is probable that this feeling would be much less pronounced. It by no means follows, however, that the large sales of futures necessarily depress prices. The prejudice against short selling in our country is largely due to the failure to appreciate its function. A short-seller neither interests himself nor wishes to go against the natural factors affecting prices. The history of organised speculation is a convincing evidence of the inability of short-sellers to defy natural conditions of supply and demand. Instead of constantly depressing prices, short-selling at times, contributes a potent factor in sustaining them. Any system which prevents extreme fluctuations on either side would tend to steady prices and be correspondingly beneficial. This is precisely what short-selling aims at accomplishing for the trade. A vast number of traders may be buying cotton for a rise at times when natural conditions do not justify an advance. It is just at this stage that a short-seller steps in. He sells short relying on his ability

¹It is estimated that the total volume in the American cotton on the different markets of the world exceed 20 times the actual production of the crop in the U.S.A. in any one year.

at a subsequent date to purchase the cotton at a lower price. His sales obviously tend to prevent the unwarranted advance from being realised. On the other hand, when, as a result of other conditions prices have fallen sharply, the fact that a short-seller must cover his sales by counter purchases contributes a sustaining influence of great importance. With a short interest in a market, the buying power develops almost immediately after a decline is started and opposes a downward tendency. It will be noticed that if short-selling has a depressing effect on a rising market it has an uplifting influence on a declining market as well. What really breaks a market in Bombay during a bear raid is the selling of weak and timid owners who do not reappear as buyers. Short-selling is as useful as long buying and both are equally beneficial in so far as they express an intelligent judgment of the probable trend of prices in a given market. As a matter of fact, short-selling does not prevent prices from eventually reaching a level either high or low warranted by conditions of supply and demand. It is not that short-sellers actually determine prices. All they do is simply to express their judgment as to what prices will be in the future. If they are mistaken they pay the penalty for their errors of judgment by having to enter the market and buy at higher prices. When the drop takes place they must become buyers to realise their profits. In this way an excessive drop in price is avoided. Short-selling therefore does not unduly tend to depress prices as is often asserted. It is instead a powerful agent in steadyng them.

4. MANIPULATION

It cannot be denied that there are circumstances under which the market may be manipulated by some speculators. Prices, at times, may be markedly influenced by their actions. The term 'manipulation' refers to the artificial raising or lowering of the price by operators through concentrated speculative dealings. Manipulation has many forms and degrees. Its chief method is to create false opinions as to the general conditions of supply and demand, e.g. some speculators in Bombay will lead the market generally to believe that they are working for a fall when really they are buying quietly and by indirect means much more largely than they are selling. Conversely, they will

buy openly when they are really speculating for a fall. Its another method is to disseminate unauthentic news. Such news are calculated to influence prices without regard to the actual demand and supply position in a given market. To guard against such actions very severe penalties have been incorporated in the rules of the exchanges. For instance, every member of the E.I.C.A. is liable to payment of a fine, suspension or even expulsion for publishing any statement which is calculated 'to mislead the members and/or the public with regard to the state of the cotton trade, etc.'¹

'Corners and Squeezes': The term manipulation also includes 'wash sales', 'matched-orders', 'squeezes', 'corners', etc. A corner is the towering form of manipulation. There is said to be a corner when one speculator or a group of speculators secures possession of almost all the deliverable cotton. For instance, on May 27th, 1921 Broach was Rs. 327, Oomra Rs. 283 and Liverpool 8.49d. On August, 12th, Broach came down to Rs. 320, but Oomra went up to Rs. 326½, Liverpool advancing only to 8.60d. It will be noticed that Broach which was Rs. 44/- higher than Oomra on May 27th, was actually cheaper by Rs. 6½ on August 12th. This was the result of a corner in Oomra contract engineered by the late Mr. Oomar Sobani.² Broadly speaking, corners are of two kinds: those which are planned deliberately for the fleecing of shorts and those which are brought about unintentionally through an unavoidable set of circumstances. The usual method of effecting a corner engineered by a speculator is to buy all the offerings of short-sellers and to encourage them to go on selling until their sales exceed the amount of deliverable cotton. Manipulators then demand delivery in due course and refuse to settle except on their own terms. Since the manipulator gains nothing by absolutely ruining the shorts, the terms arranged are in the nature of a compromise. The victims are squeezed according to their financial standings. To be successful, the manipulators must have sufficient resources to acquire the necessary amount of the commodity. When the prices rise supplies from various

¹Bye-laws of the E.I.C.A., No. 17 (e).

²Bombay Cotton Annual No. 4, p.53. See also report of the Bombay Millowners' Association for the year 1922, p.1.

sources would rush in. To maintain the corner the manipulator has to purchase all these supplies, otherwise, the shorts may make the best of them. Manipulators have thus to run great risk. They have to discount in advance any gain likely to result from the venture. When the corner aimed at becomes successful a temporary squeeze results. The price is driven up for the last few days of the contracted position and the shorts have but to settle.

A squeeze is a little corner in a particular position of the futures contract. This occurs frequently. For instance, on December 29th, 1924 Broach April/May was Rs. 456, Oomra December/January was Rs. 438 and Liverpool 13.28d. On January 23rd, 1925 when Liverpool went down to 12.85d and Broach came down to Rs. 454, Oomra went up to Rs. 465.¹ Similar cases occurred in 1930-31 when Oomra December/January was quoted at a premium of Rs. 15½ over April/May Broach and in 1934-35 when Broach April/May was squeezed and its price from Rs. 220 in March jumped up to Rs. 251 in May. A squeeze results rather from shortness of supply artificially created by one or the other factor than that caused by actual scarcity of cotton. The manipulator merely acquires control of the deliverable supply of cotton in a particular city where the exchange is located. He keeps his programme secret until near the end of the delivery period. Short-sellers of that particular position are obliged to make delivery by the last business day of the delivery period. If they are unable to meet their commitments in time they are required to settle their contracts with the manipulator on his own terms. A commodity corner or squeeze cannot easily be contrived in the beginning or middle of the season but in the end it may be possible to squeeze the market.² For example, July/August in the case of Broach and July in Oomra can be squeezed with comparative ease in our market.

Manipulation in the form of corners and squeezes is condemned by society because of the general feeling

¹Bombay Cotton Annual No. 6, p.10.

²In considering a corner or squeeze there are three major factors that must be taken into account and they are: (1) availability of cotton for tender, (2) the distance of or creation of sizeable short interest in a position and (3) activity of the market must be sufficient to accumulate a long position.

against tampering with prices, and the plight of the victims who have to accept unconditionally the terms dictated by the manipulators. Corners or squeezes constitute a menace to speculative markets and do not serve any useful economic function. When financed knowingly they represent a misuse of credit funds. They tend to disrupt the machinery of legitimate speculation and cause the gravest injustice to the market. When corners are attempted, the effective reply on the part of intended victims is counter manipulation. The corner can be broken by continuously selling short and forcing the cornerers to take not only the whole of the real supply but the artificial supply as well. This course is no doubt a bit risky for the shorts unless their capital and nerve are greater than those of the bulls. For the most effective and successful remedy one may therefore look to the organised markets themselves. Authorities can prohibit trading in a particular futures contract, fix the settlement price of a particular position of a futures contract or the maximum and the minimum prices of a certain futures may be fixed for the entire season. For instance, the Board of the E.I.C.A. prohibited trading in July/August 1924 Broach contract during the season 1923-24. The maximum rate for Broach was fixed at Rs. 700/- and rates for other contracts were also fixed and all trading except for settlement business was prohibited for several days.¹ During the season 1929-30, the E.I.C.A. fixed the minimum price at Rs. 240 for July/August Broach, Rs. 197 for July Oomra and Rs. 175 for July Bengal. Similarly, during the season 1930-31, the Board of the E.I.C.A. fixed minimum prices for the various contracts and trading in new crop was commenced earlier than the usual date.² A further remedy that can be suggested is the development of public opinion against the manipulators.

'Wash-Sales and Matched-Orders': The traders of the present day do not favour corners or squeezes as a popular method of manipulation. This is largely attributable to the fact that the rules of an exchange now make it difficult, if not impossible, to carry out such an operation to its successful conclusion. But manipulation by means of

¹Bombay Cotton Annual No. 5, p.8.

²Indian Cotton Review for the season 1930-31, p.10.

'wash-sales' and 'matched-orders' occurs from time to time on a futures market. Wash sales are fictitious transactions in which one broker arranges to sell to another at an artificially high price. Others being unaware of this arrangement are led to believe that there is genuine reason for the advance in prices. In case of matched orders a manipulator desiring to advance or depress the market gives simultaneous orders to different brokers with instructions to buy and sell at a certain price. The market can in this way be stirred to activity and the prices may be made to appear at a level pre-determined by a manipulator. In most cases the brokers employed are ignorant of the object in view and they act in good faith. The success of the manipulators in these cases, however, depends mainly on the fact that the buying and selling brokers should not deal with others but among themselves. Though the exchanges have strict rules prohibiting such fictitious transactions there is no practical means by which they may be detected.

Uses and Abuses of Speculation: So far as evils resulting from manipulation or tampering with the markets are concerned it is probable that the system at times may aggravate the very condition it should correct, viz., extreme violence in price fluctuations. Such a condition would mean in most cases that the legitimate function of the speculative system is being perverted. It would also indicate that prices are being influenced by little more than pure gambling.¹ The influence of this gambling element in the market at times has been great and it is useless to deny it.

A great weakness of the present speculative system is that there are too many people to supply futures contracts. Due either to the needs of other lines of business or absolute limitation of funds, they cannot stick through the long run and are wiped out by the first or second unexpected turn of the market. Individuals with little or no knowledge of the trade and lacking in the poise that accompanies ample financial resources and training con-

¹"For a given time a single individual or a group of individuals supported by sufficient capital, may so disorganise the market as to deprive speculation of all its normal benefits." H. C. Emery: *Futures in the Grain Market: The Economic Journal*, Vol. 9, p.65.

stitute an undesirable element in the market. It is true that they serve to lend continuity to the market but against this advantage the adverse effect of those who fail and cause disturbance in the price cannot be overlooked. Speculation sometimes proves disastrous to many people. The evil is steadily increasing with the increasing number of inexperienced and lazy speculators who hope to earn a fortune by ready made astrological forecasts. For instance, we have come across a fairly large number of traders in Bombay, Ahmedabad and other places who mostly rely on astrological tips and base their operations on such forecasts. These dealers operate in the Bombay and Ahmedabad markets not because they are convinced by the economic facts relating to the conditions of supply and demand for Indian cotton, but because their astrologers have given them what they regard and value as most confidential tips regarding the effects of the movement of a particular 'star' or planet. They prefer this short cut to money-making to the hard work of a professional speculator. In fact, the speculator is a man of high professional attainment which these people lack. If it were possible it would certainly be desirable from a social as well as economic point of view to rid our market of the small and uninformed outside speculators because they bring with them the spirit of gambling.

As regards benefits a speculative system renders various advantages. For instance, it stimulates competition in the number of traders engaged in the business. The question is in what manner speculation is availed of. Speculation can certainly be made a very effective instrument in steadyng prices in either direction and at the same time it may be used to carry prices to extremes by manipulation. What is therefore desirable for a predominantly agricultural country like India is not to abolish the speculative system but to limit its application to useful purposes only. In fact, speculation in India often bears the brunt of attacks which are really directed against gambling and manipulation. The cotton market in Bombay is often looked upon as an institution carried on for the purpose of gambling.¹ This is a very erroneous view and does no justice to such an institution. Speculation is the

¹Personal discussion.

necessary element in the maintenance of a balanced and a continuous market. Abuses follow uses but uses cannot be discontinued because of that. Speculation when harnessed by strict rules and put to the work of moving the crop is a great benefit to the society. Speculation is an aid to distribution of the staple. The part that speculation plays in the distribution of the crop is of immense importance to a producer, merchant and consumer in a country like India, because, we have to distribute 50% or more of our crop abroad and if there is no speculative market there would be no hedging facilities.¹

The uses and abuses of speculation, in fact, have been the subject matter of endless discussion; but none can deny its healthy effects. The speculator's function is as much productive as that of the producer to whom he affords protection against a large amount of risk due to the uncertainty of future demand. But there are those especially in our country who take part in speculation simply by way of gambling. They bet upon the course of prices of the Broach futures contract in Bombay without any knowledge of facts concerning the factors affecting the price level in India.² Therefore the modern system of speculation in futures has proved itself a convenient scapegoat in Bombay for all the evils of the trade. Whether or not measures can be devised either by Government or by institutions like the E.I.C.A. to put an end to the abuses of speculation in our markets without seriously disturbing its uses is a matter of great difficulty. In the light of these circumstances, it may be observed that the authorities concerned should see that any reform to do away with the evils of speculation should not tell upon its benefits.

5. EFFECTS OF SPECULATION UPON PRICES.

There are three main considerations involved in studying the effects of speculation upon prices; whether speculation in futures depresses, advances or steadies the prices. These points represent conflicting views from the cotton world including those of the growers, spinners, merchants and speculators. For the sake of analysis it is

¹Refer to Chapter on 'Hedging'.

²Especially this is true so far as the Bombay Presidency is concerned.

proposed to give in the first place, methods of testing effects of speculation upon prices in a futures market like Bombay, secondly, a few recent studies made in this connection in other countries and finally, information received by us while making a personal investigation as well as the answers received to our questionnaire on this subject. This should enable us to observe the effects of speculation upon the cotton trade in general and prices in the Bombay futures market in particular.

Methods of testing effects of speculation upon prices:

There are four possible methods of testing effects of speculation upon prices; viz., (1) to compare prices of the same commodity at the same time in different places, (2) to compare prices in the same market or in similar markets at different times, (3) to compare prices of different grades of the same commodity during the same period in the same market and (4) to compare prices of different commodities whose markets in most respects are similar except that some have and some have not facilities for futures trading. If we compare cotton prices in different parts of the world, we meet with the difficulty that the prices in the spot market are directly influenced by those in the futures market and vice versa.¹ For instance the spot price of the Fine Punjab/American cotton in Karachi on 4th January 1938 was Rs. 18/14 and its January futures price was Rs. 18/10. Similarly in Bombay the spot price of Fine Oomra cotton on 4th January 1939 was Rs. 152 and its December/January futures price was Rs. 149. Thus it will be noted that the prices in the spot market are not wholly independent of those in the futures market. The direct influence of futures may have been removed in the case of the trading in a spot market but its indirect influence remains. If we compare the prices of different grades of cotton, we meet with the same difficulty, because, the prices of the grades deliverable on futures contracts and those not so deliverable are interdependent. Moreover, either the two grades are substitutes in some degree in which case the price of futures contract influences the price of both or they are in no degree substitutes, in which case, the several conditions of demand may be wholly different. For instance, 'fine' and 'superfine' or 'good' and

¹Refer to Chapters on 'Hedging' and 'Prices'.

'fully-good' Broach are so close that they may be used as substitutes in some cases but 'fully-good' Broach and 'fully-good' Bengal are in no way substitutes and their demand depends upon other conditions. Hence, it is certain that the data cannot be freed from the influence of counter-acting causes. If we compare the prices before the introduction of futures trading with those of futures, we meet with the difficulty of changed circumstances. The introduction of organised speculation has been accompanied by other changes such as, the introduction of telegraphic communication, the establishment of grading systems, the improvement of transport and storage facilities, etc. These changes collectively far outweigh in importance the advent of the futures trading or organised speculation.¹ Comparisons of the price fluctuations of similar commodities such as cotton and jute or cotton and wheat present the difficulty that the prices are not entirely independent of one another. It should be pointed out that unfortunately, any one of these methods is subject to one or the other defect which prevents it from establishing the singular effects of speculation upon prices. In fact, it is admitted by economists that none of these methods is satisfactory.²

Recent studies made to test effects of speculation upon prices: We may also refer in this connection to studies made abroad. Recently special studies have been made in some countries to scrutinise the effects of speculation upon prices. Amongst these the most conspicuous and authoritative documents are (1) the Report of the Stamp Commission, 1931, Canada, (2) the Report of the International Chamber of Commerce, 1931 Paris, and (3) the Report of the Special Committee of the Chamber of Commerce of the U.S.A., 1930, Philadelphia.

¹cf. "If different periods are selected for comparison, so early a period has to be taken as representative of the times before 'futures' were in operation that economic conditions wholly dissimilar from those of the present are brought into the problem as disturbing factors." S. J. Chapman and Knoop Douglas: "Anticipation in the Cotton Market". The Economic Journal, pp.541-42.

²cf. "The influence of speculative marketing on prices", Usher: American Economic Review: Vol. 6, pp.49-60. Usher concludes that the problem is not susceptible of direct statistical solution. See also Economic Journal Vol. 14, Chapman and Knoop, and Vol. 23, Levingston: 'Social interest in speculation'. pp. 36-52.

(1) Report of the Stamp Commission: The Stamp Commission observes¹ that

"The general effect of future trading on price fluctuations is to 'put on brake'. Instead of prices falling violently the fall is cushioned; it comes gradually in a series of small steps. Or conversely, instead of prices rising rapidly the rise is stepped up gradually. The total effect is that the market range—the spread between high and low prices—is reduced. Thus under future trading, the daily, weekly, monthly and yearly ranges in price are smaller than these ranges would be without futures trading."

So far as the effects of speculation upon prices are concerned, the Commission concludes² that

"The effect is certainly and materially to lessen major fluctuations in price extending from year to year and quarter to quarter....The effect of the system with the features it involves in practical working is probably and more especially at times of active, natural or inevitable changes of price, to increase the minor short period oscillations round about the stabler fluctuations."

(2) Report of the International Chamber of Commerce: The report of the futures market Committee of International Chamber of Commerce maintains under the 'head' of speculation³ that

"This necessary activity of the market also contributes to the smoothing out of violent fluctuations in prices.It is true that futures trading being active entails more frequent oscillations in prices but over a long period there appears to be a close connection between trading in futures and reduction in the range of values."

(3) Report of the U.S. Chamber of Commerce: The report of the Special Committee of the Chamber of Commerce of the U.S.A. submits⁴ that

¹Report of the Stamp Commission, 1931, p.14.

²On pp.68 to 72 summary of conclusion is given.

³International Chamber of Commerce: Futures Trading, Brochure No. 10, 1931, pp.15-16.

⁴Report of the Special Committee of the Chamber of Commerce of the U.S.A., 1930, p.28.

"Futures trading has a tendency to bring closer together the price extremes of a given crop. There can be but little doubt that in many cases the intervention of speculative demand and speculative supply through the purchase and sale of futures has checked price movements and has reduced the range between the high and low prices."

Information received by us on the subject: It is appropriate to give the information received by us on the subject here. It may however be mentioned that we give below only a few selected but representative replies as it is not possible to reproduce all of them.

- (1) "Speculation cannot put up a price contrary to the dictates of supply and demand."
- (2) "Speculative transactions make for a steady market and help to prevent erratic fluctuations."
- (3) "Speculation has a great stabilising influence in the market".

It will be noticed that according to the foreign studies and opinions received by us speculation in futures has a steady effect upon the price level. It has the effect of keeping price fluctuations within narrow limits. Since the interest of the speculative class lies in that of the trade as a whole, they can only make a profit and survive while serving the society.

Conclusion: The conclusion therefore in regard to the effects of speculation should rest entirely upon theoretical reasoning. So many other factors enter the situation alongside the influence of speculation that it is very difficult to isolate its effects upon prices. The prices in a futures market are determined by the existing supply and demand which when taken as effective tend to be speculative because they are dependent upon conditions in other markets, and on judgment concerning the future. Future supply and demand in turn exert their influence over the present speculative supply and demand and the price is also affected by them. A speculator deals mostly in estimates of future prices. The question therefore is whether the speculative increase of supply really tends to depress the price and vice versa. It cannot be denied that the

increase of supply whether artificial or genuine should tend to depress prices. The point to be considered is how far the speculative increase of supply succeeds actually in depressing prices. It will be admitted that this should depend upon the strength of demand. Speculators usually hold divergent opinions as to the probable supply and demand and one section must be wrong. This very divergence of opinion tends to prevent extremely violent variations. A bear speculator cannot depress prices by selling artificial cotton indefinitely in as much as, a bull speculator will become equally active and his purchases will raise the price. The combined effects of speculative buying and selling should be to cause prices to rise or fall in advance of changing conditions and to remove the extremes in price which would otherwise result. It is not only in a falling market that profits can be made. It is easy to create an artificial demand just as to create an artificial supply. It cannot be gainsaid that bulls are in any way less enterprising than bears. Contrary to the general belief (a) of agriculturists, that speculation depresses the price and (b) of spinners, that it advances the price; those who have studied the subject maintain that speculation subsides violent fluctuations and has no permanent tendency in either direction. Instead they hold that speculation brings about earlier a correct price level than it would otherwise be established. Where a speculative market is free fluctuations in prices otherwise violent and disastrous, ordinarily become gradual and comparatively harmless. Since every speculative transaction is at one time a purchase and a sale at the other, it must have a salutary effect in stabilising prices. A professional dealer in a market is not for the purpose of either depressing or raising prices. He is as ready to make money on a rise as on a fall. In either case, he tries to ascertain what the probable tendency of the market would be before embarking on any undertaking. In so far as the question whether speculation in futures depresses or advances the price is concerned, it may thus be observed that the purchases of those who buy because their investigations lead them to conclude that the supply is likely to run short or sales of those who sell since they are convinced that the supply has been underrated, would certainly tend neither to unduly advance nor to unduly depress prices.

As to the effects of bringing about steadiness or unsteadiness in prices, it may be said that speculation tends to concentrate all the factors influencing prices in a given market. Price differences between different places and positions of a futures contract are eliminated by 'badla' operations. One reason why speculation in futures should promote stability of prices is that it stimulates the collection of all sorts of information bearing upon the prices. As information is gathered and disseminated the opportunity for violent price movements would be restricted in any market. The tendency of speculation to steady prices largely rests on the informative service of the market. The dissemination of information should bring about the readjustment of prices from the time the changes in conditions are first noted. Fluctuations arising from causes that can be foreseen are therefore discounted in advance. The natural result of such readjustment would be to reduce the violence of price fluctuations, because, the anticipation of changes in the future price affects the present market prices. On the other hand, speculation makes a market more sensitive to every change in condition of domestic as well as world supply and demand for a commodity. The futures market is more mobile than the spot market. Fluctuations, if less violent are more frequent in futures prices. For instance, today the slightest change in the supply or demand for Indian cotton exercises more influence on the prices of the Broach futures contract in Bombay than it ever did before. In fact, the more perfect the speculative market becomes the more sensitive it is to every change in conditions calculated to affect the price level in a given market. This will result in a state of less violent but more frequent fluctuations in futures prices. The factors responsible for bringing about this frequency in the price of 'futures' are: (a) in the futures market there is more scope for reasoned imagination than in the spot market, (b) a far greater quantity of business takes place in futures than in spot and (c) the deal in futures is very rapidly effected. Therefore the frequency in price fluctuations tends to be increased though its degree or extent is reduced.

It should, however, be observed that speculation especially in our markets at times is responsible for

increased fluctuations in the price of the Broach futures contract. The possibility of manipulation in the Bombay market is a case in point. There is also an opportunity for registering the influences of panic in business at Bombay and trade cycles in India. Moreover, the unreasonable excitement of the outside public sometimes tends to cause violent movements in price of Indian cotton. At the same time it should not be forgotten that cases of manipulation, panic influence or public excitement are rare nowadays in Bombay and of short duration when they occur. On the whole, it seems safe to observe that under normal circumstances, dealings in futures have steadyng effects on cotton prices. Buying and selling by professional dealers should tend to steady prices.

CHAPTER X.

PARITY DIFFERENCES AND BADLA OPERATIONS

PARITY differences is a vague phrase in the cotton world and sometimes misleading too. Speculation at times causes irregular movements in different cotton markets all over the world. It is a common conception that parity difference reflects all sorts of differences among various kinds of world cotton. These variations are generally understood to be 'parity differences'. These differences give rise to 'straddle' operations or what is generally known in India as 'badla' business. It will therefore be our purpose first to explain the meaning of parity difference and then to examine its relation with badla operations and finally to deal with badla business in this chapter.

1. PARITY DIFFERENCE

Meaning of the Phrase 'Parity Difference': The phrase 'parity difference' denotes the difference in the prices of two contracts based on the same growth; e.g. the price of the May position of the American middling in Liverpool and that of the May position of Middling in New York on a given day. But in India the phrase 'parity difference' is given a technical meaning. The 'parity difference' in our markets will denote the difference in prices of the two different futures contracts, based on two different growths; e.g. the price of the April/May position of the Broach futures contract in Bombay and that of the May position of the American middling in Liverpool on a particular day. In our market parlance, thus, 'parity difference' refers to the price difference between any two kinds of cotton contracts such as Broach and middling, Sakel and Broach, etc.¹

Its principle: The theory on which the idea of parity difference is based is that if a market is nearer to the source of production the commodity should be cheaper there

¹"The expression 'parity of cotton' is used to denote comparative or relative price. The parity of Indian cotton in general parlance means the price of Indian cotton as compared with the price of American cotton." R. G. Saraiya: Speech delivered at the Sydenham College of Commerce & Economics, 26th Feb. 1935.

than in a distant market since shipping expenses will have to be incurred in the latter case. In cases where merchants have to purchase cotton from any two distant sources of production they take into account the comparative prices including the cost of transport and other charges. For instance, a cotton importer in Japan will consider before making any purchase the difference between the prices of American and Indian cotton. This comparison of the prices of different growths will give him the general idea of the parity difference between them. If he finds that American cotton is comparatively cheaper than Indian, he will arrange his programme of purchasing cotton accordingly. For practical purposes, however, it may be said that, other things being equal, the parity difference generally relates to the price of cotton plus the cost of freight, insurance and other incidental charges between any two organised futures markets either abroad or within a particular country. When the markets go out of line, parity difference is regarded as either widened or narrowed as the case may be and the prices of two futures contracts are understood to be relatively high or low between two given markets.

Methods of Finding Out Parity Differences: There are two methods to find out parity difference, namely, (a) the reduction of the prices of any two futures contracts to a common denominator and (b) ascertaining the intrinsic value of different growths.

(a) **The reduction of the prices of any two futures contracts to a common denominator:** For the purpose of arriving at parity difference between the prices of any two futures contracts let us take an illustration of the Middling at New York and the Broach at Bombay and compare their respective quotations on a given day. The middling and the Broach do not mean one and the same kind of cotton. What these different contracts represent may then be analysed here. In the first place, the quotations for the two contracts mean the price of Middling cotton in New York on a particular day and that of Broach cotton in Bombay on the same day. These prices are expressed in the respective currencies of the countries, cents in America and rupees in India. The quantity quoted for is another point of difference. The Middling price stands for

one lb. gross weight, while the Broach price is for a candy equivalent to 784 lbs. net weight. There is a great deal of variation in standards. In New York 'Middling upland' is taken as basis whereas in Bombay it is 'F.G.M.G.' Broach. Staple length of both also differs. The Middling has 7/8" as the staple length while the Broach has "the fair average staple of the season." Again, the months of delivery are not the same. Middling in New York has all single months of delivery, but the Broach in Bombay has all double months; e.g. Middling May cotton is deliverable in May, whereas Broach April/May cotton is deliverable in April and May. Thus a seller in Bombay gets an option of two months in tendering, while the same option to the New York seller is restricted to a month only. Finally, on the New York contract, cotton can be delivered at any one of the designated places, while on the Bombay contract it can be delivered only in Bombay. Similarly, examples may be taken of American cotton in New York and Liverpool, Egyptian cotton in Liverpool and Alexandria, and Egyptian and Indian cotton in a market like Bombay or Liverpool. In order to arrive at the correct difference in the prices one has thus to take into account all these points of variations between any two futures contracts.

To indicate the price difference it is obviously necessary that the price of one futures contract be converted into the terms and currency of the other. This requires a definite method. The method for finding out parity differences between different countries is given below.

To compare Bombay with Liverpool prices: One should convert the former from a rupee per candy basis to a pence per lb. basis at the ruling rate of exchange between India and England and then compare the same with Liverpool quotation and vice versa. For instance, taking the quotations on December 2nd, 1940, say, Liverpool at 6-80d. per lb. works out at Rs. 296 per candy at 1/6 exchange. The Bombay quotation on that day was Rs. 236. This works out to Rs. 60/- lower than Liverpool as parity difference.

Similarly parity between New York and Bombay can be obtained by reducing the cents per lb. to rupees per candy at the current rate of rupee-dollar exchange and comparing with Indian quotations and vice versa. For instance, taking the quotation on December 2nd, 1934, say,

New York at 12.80 cents and the rupee-dollar cross rate 2.70, one arrives at a price of New York at Rs. 271 per candy which comes to Rs. 287, if allowance¹ is made for the net and gross weights. The Bombay quotation at Rs. 236 on that day works out to Rs. 287 minus Rs. 236 i.e. Rs. 51 lower than New York as parity difference.

All these points may be expressed in a simple mathematical formula as follows:

To find out parity difference, multiply the price of a particular position in a certain market by weight in lbs. and divide the multiplication by the ruling rate of exchange between the two countries. From that amount, deduct the prevailing price of that particular position in that market and the result will be the parity difference in the currency of that country. OR, multiply the price by exchange ratio and divide the multiplication by weight in lbs. and by subtracting the same from the prevailing price it will result in the establishment of parity difference between the prices of two countries.²

(b) Ascertaining the intrinsic value of any two different growths: Another method of arriving at the parity

¹Allowance should be made for tare in case of New York price, since, it represents a gross weight and not the net one as in the case of Bombay or Liverpool. This tare is conventionally estimated at 6% and so much will have to be added to the price arrived at after its conversion.

"This formula may further be reduced to an algebraic equation which is as under:

(i) Parity difference between Bombay and Liverpool: Bombay: Liverpool price x 784 lbs. —the prevailing price

Rate of exchange
=Parity difference in Rs.
 Liverpool: Bombay Price x Rate of
784 lbs.

=so many d. per lb.
and by subtracting this from the prevailing price in Liverpool,
parity difference in pence points will be obtained.

(ii) Parity difference between Bombay and New York:
Bombay: New York price x 784 lbs. — the prevailing price

Rupee-dollar exchange.
=Parity difference in Rupees.

New York: Bombay price x Rupee-dollar exchange
784 lbs.

==So many cents per lb.

and by subtracting this from the prevailing price in New York, parity difference in cent points will be obtained.

difference is to ascertain the intrinsic value of any two growths. To find out the intrinsic value, the quality difference of different growths must be accounted for. The common belief is that there is a definite relationship between all kinds of cotton, say, Indian and American, which is reflected in their intrinsic values. This can be determined by various factors such as strength, staple length, grade, colour, etc., or what is known as 'Spinning performances'. Difficulty, however, is that the spinning difference is simply one of the factors affecting price relationship. Hence, there could not be any fixed ratio of intrinsic value between the two varieties.

There are some traders who, however, believe that this relationship is always fixed.¹ They are under the wrong impression that parity difference is a fixed thing. Not only do they imagine that parity difference is fixed, but they also act upon this belief. To this class of people it may be pointed out that under any circumstances there can never be anything like a fixed price difference in existence. Parity difference simply indicates a certain and not at all a fixed relationship at a particular time. On the contrary, this difference is more or less a constantly varying function. Those who imagine that there is a fixed parity difference act on the idea that if there is a disturbance in it, it would be a paying proposition to operate and take the full advantage of it. Unfortunately, when they actually operate under such unwarranted assumption, they are likely to burn their fingers.

Assumption of 'Normal Parity Difference': Let us now ascertain whether there exists any tendency in this relationship which can be termed as 'normal parity difference'. Parity difference for practical purposes is expressed in two ways: (i) Rupees or points and (ii) percentage.

(i) **Rupees or points:** For the purpose of entering into badla business a comparison of prices after making due

¹For practical purposes they follow the rough and ready method of calculating parity difference. "A change of 4 points in the price of the Middling New York or that of 2.25 points in the price of the American Middling in Liverpool would mean a corresponding change of one rupee in the price of the Broach in India. Still others work on the basis of Liverpool, 1 point=annas six in India and New York one point=annas three." This may be considered hardly scientific.—Personal investigation.

allowance for intrinsic value has been found useful from trade experience. Let us therefore assume that Broach in Bombay is, as a rule, Rs. 40/- lower than Middling in New York because of its inferior spinning performance.¹ For instance, suppose Broach April/May futures on March 16th, 1939 was quoted at Rs. 155 and New York May at 8.33 cents. The T/T Bombay on New York was 2.86. The parity difference will be 1.44 cents or Rs. 30/-. Taking the assumption of Rs. 40/- as normal, this will signify that there is a difference of Rs. 10/- in favour of Broach on that day. Similarly, the example of Liverpool-Bombay may be taken. In the case of Liverpool Rs. 50/- may be regarded as the 'normal parity difference'.² Taking Liverpool May at 4.43d. on 3rd August, 1939 and the rate of exchange at 1/6, we get Rs. 193 out of which the price of Broach, Rs. 154 on that day may be deducted. The net difference would be Rs. 39. Taking the assumption of Rs. 50/- as normal this will signify that there is a difference of Rs. 11/- in favour of Broach on that day. Conversely, if we take Broach April/May at Rs. 154 and Liverpool May at 4.43d. and the rate of exchange at 1/6 we get 3.50d. By subtracting 3.50d. from 4.43d. we get the difference of .93d. Parity difference in these cases have been stated in either rupees or points and they therefore are known as 'rupee-parity difference' and 'cent or pence points-parity difference'. It is necessary to emphasise that the figures of Rs. 40/- in the case of New York-Bombay and Rs. 50/- in the case of Liverpool-Bombay are nothing but pure assumptions, and the actual figures may be different on any day. As a matter of fact, parity difference varies with the variation in prices. The higher the price, the higher will be the parity difference and vice versa.

(ii) **Percentage:** Another way of expressing parity difference is that of assuming normal percentage difference between the prices of two futures contracts. At present the Broach cotton might be taken at 10% intrinsi-

¹Our inquiry has revealed that this figure at present be taken as the probable assumption in the case of New York prices. Some take Rs. 50/- as normal. However, this is a matter of opinion and not a fixed thing since there are various difficulties in arriving at the exact intrinsic quality value difference.

²Personal enquiry.

cally lower in value than the Middling in New York and the relative parity difference be watched accordingly. In the case of Bombay-Liverpool, normal parity difference may be assumed at 20%. Any percentage higher or lower than 10 or 20% respectively will be stated as so many per cent higher or lower than normal parity difference. But here also the fact that parity difference is not a fixed quantum remains intact, since, 10% or 20% of today might become 15% or 25% of tomorrow.¹

Advantages of expressing parity difference in percentage: The advantage of percentage parity difference over the point or rupee parity difference is that it gives a comparatively better idea of prices. It also gives us an average idea on both sides whereas the point or rupee parity difference indicates one-sided general idea only. In the case of higher prices, the parity difference expressed in the latter form becomes the absolute figure which might sometimes mislead an operator. If the prices are higher or lower, the assumptions in the above-mentioned cases of Rs. 40/- in the case of New York-Bombay and Rs. 50/- in the case of Liverpool-Bombay will be changed, and the proportion of parity differences will not be correctly reflected in either points or rupees. The proportions will rather be magnified or contracted as the case may be; e.g. if Liverpool cotton is a shilling a lb. the value of Bombay will not be Rs. 50/- lower but possibly Rs. 100/-. If it is worked out in the percentage form, the difference will be in percentage and not in absolute prices.

One example may be actually worked out in order to complete our discussion on percentage system of calculating parity. Suppose the Liverpool quotation on 4th August 1939 is 4.41d. then calculating as usual we get 3.52d. for Broach. Now if we take 100 for 4.41d. we would get 79.8 for 3.52d.

¹Instead of assuming anything as normal parity difference it may be suggested that a most scientific method of arriving at normal price differences will be to take into account the quotations of spot sales of Broach and Middling from the buyers' market such as Osaka or Liverpool for five years with due consideration of expenses from Bombay and New York to Osaka or Liverpool. Then the mean of five years' prices will have to be worked out in order to establish the parity difference between them and finally, the result may be turned into percentages.

which comes to 20.2% as percentage difference. Thus instead of stating .89d. as parity difference it might be expressed as 20.2% as parity difference between the two futures markets.

TABLE¹ SHOWING PARITY DIFFERENCE IN PERCENTAGE

Liverpool (May American) & Bombay (April-May Broach): Bombay prices converted to Liverpool Equivalent at Exchange 1/6 per Re.

Months	1934-35			1935-36			1936-37		
	Bombay. Rs.	Liverpool. d.	Diff. in per cent.	Bombay. Rs.	Liverpool. d.	Diff. in per cent.	Bombay. Rs.	Liverpool. d.	Diff. in per cent.
May	194	5.79	22.97	226	6.23	16.54	196	5.58	19.18
June	217	6.36	21.54	212	5.92	17.57	210	5.86	17.58
July	228	6.79	22.83	224	6.12	15.85	226	6.58	20.97
Aug	231	6.92	23.27	204	5.77	18.72	215	6.33	21.80
Sept.	217	6.75	26.07	198	5.71	20.32	222	6.46	20.90
Oct.	210	6.58	26.60	217	6.09	18.06	220	6.67	24.14
Nov.	214	6.52	24.54	225	6.34	18.30	216	6.45	22.95
Dec.	227	6.73	22.44	220	6.26	19.17	224	6.71	23.25
Jan.	240	6.81	18.94	205	5.86	19.45	230	6.87	23.00
Feb.	245	6.72	16.07	198	5.82	21.82	225	7.01	26.11
Mar.	228	6.42	18.38	195	5.84	23.29	238	7.75	29.42
April	238	6.49	15.72	198	6.11	25.53	244	7.50	25.20

Months	1937-38			1938-39		
	Bombay. Rs.	Liverpool. d.	Diff. in per cent.	Bombay. Rs.	Liverpool. d.	Diff. in per cent.
May	240	6.98	20.92	174	4.96	19.35
June	232	6.75	20.89	161	4.57	19.04
July	227	6.86	23.91	168	4.90	21.23
August	200	5.92	22.30	156	4.73	24.32
Sept.	183	5.29	20.42	152	4.66	25.11
Oct.	165	4.78	20.71	155	4.80	25.84
Nov.	160	4.63	20.52	160	4.86	24.28
Dec.	167	4.68	17.95	157	4.60	21.52
Jan.	177	4.94	17.61	158	4.79	24.00
Feb.	176	5.02	19.33	151	4.62	24.68
March	168	4.92	21.55	154	4.97	28.57
April	160	4.74	22.36	152	4.48	22.10

¹Based on data supplied by Messrs. Devkaran Nanjee, Bombay.

2. FACTORS AFFECTING PARITY DIFFERENCE

The undermentioned factors play an important role in the determination of parity difference: (a) Comparative supply and demand, (b) Quality of the crop, (c) Transport charges, (d) Rate of exchange, (e) Price regulations, (f) Tariff walls, (g) Technical factors, (h) General outlook and (i) Local conditions.

Comparative Supply and Demand: The first and foremost factor that considerably affects parity difference is the relative supply and demand of cotton in any two markets. In the case of a small crop in India, the supply of Indian cotton will be restricted and the demand being constant prices will rise. This will be reflected in parity difference with foreign cotton. There was really such a situation in 1931-32, when our crop was only 4.6 million bales. There was a famine in Oomra tracts. The demand became so great that the Oomra December/January contract lost its normal relations with Broach, and was quoted at higher prices. The result was that the Bombay market improved rapidly. It was then considered to be a profitable proposition to import American cotton which was comparatively cheaper and actual purchases were made in America for importation into India. This was the natural sequence of prices which before the commencement of the delivery period ruled about as high as American cotton. A reverse case may also be noted. The American supply for 1937-38 was a large one of 18.9 million bales and had its reflections on prices and parity differences of the world cotton.¹

Quality of the Crop: The character of the crop also affects parity difference. Suppose a certain crop contains a smaller percentage of better staples. The demand for stapled varieties will be greater and hence, the prices will be relatively higher for them. For example India now produces about 15 lakhs of bales of long staple cotton, the demand for which is always comparatively greater than that for other styles. In consequence, they fetch high

¹"Parity difference between Indian cotton and the American varied from 2.66 cents on March 25th to .15 cents on 23rd Sept. 1937 when New York May prices stood at 14.03 cents and Broach April/May at Rs. 272 and at 8.84 cents and Rs. 183 respectively." Indian Cotton Review: 1937-38, p.29.

prices. Similarly, if the American crop contains a greater proportion of better quality and staple, it will command higher prices in the world's crop, other factors being the same.

Transport Charges: The next factor is the cost of transport including freight rate, insurance and such incidental charges. In the case of similar growths, e.g. Liverpool American Middling and New York Middling, basis being more or less the same the transport charges greatly affect the parity difference between the two. The case of Indian cotton is different. Our cotton has to enter into competition with American and other growths in the world market, and therefore shipping expenses are more important to India. Since our cotton is inferior to that of the U.S.A., this factor plays a more important part by way of keeping the price of Indian cotton in line or out of line with that of the U.S.A. As a matter of fact, freight rate is not a fixed charge but is determined by the demand and supply of ocean tonnage and thus varies from time to time. Sometimes, transport charges are subject to political situations. For instance, from July 1939 onwards, the political situation in Europe became ominous. War looked imminent and among various things, war-risk insurance charges and freight rates were raised in India. As a result, the Indo-American parity difference was narrowed down from 2.17 cents on July 27th 1939 to 1.57 cents on 15th August 1939.

Rate of Exchange: The rate of exchange has a direct bearing on the calculation of parity difference. Prior to 1914 when only slight variations occurred from day to day in the foreign exchange, it was not so important a factor as it is at present. Further, the value of the pound sterling has a direct effect on the price of cotton. England went 'off' gold in September 1931, and the price of cotton in Liverpool went up with every fall in the London-New York Cross-rate. In Bombay also partly for the same reasons, and partly for the fact that the rupee was divorced from gold and linked to sterling, cotton prices soared high. But the buoyancy that was prevalent in Liverpool and Bombay was absent in New York. This upset the parity difference between the Middling in New York and Broach in Bombay or American Middling in Liverpool to a considerable extent. The depreciation of

the rupee for example, was only about 30% while Indian cotton was 70% higher in price. The correction towards normal parity difference took place during March. Later on when the U.S.A. devalued the dollar this factor achieved overwhelmingly greater importance than any other single consideration. For example, the behaviour of the £ which depreciated by stages from 4.85 7/16 dollars on 1st Sept. 1938 to 4.64 13/16 dollars on 30th December 1938 and to 4.32 dollars on 31st August, 1939, occasionally brought about the rapid narrowing in parity difference between New York and Liverpool and New York and Bombay. Thus prices may go up and down with the probable fluctuations in the rate of exchange and parity differences would be affected to that extent.

Price Regulations: A factor that has recently entered into the arena of calculating parity differences is the State attempts at the stabilisation of the price of cotton. The State in some countries buys the surplus cotton and tries to prevent a decline in price by way of backing up the market. This upsets the market relations and ultimately the parity differences. A recent example of this kind is furnished by the announcement of a loan to farmers by the U.S.A. authorities on 27th August, 1938. It prevented a fall in the American cotton prices which ordinarily should have taken place in view of a crop of 12 million bales during 1938-39. In India there being no such price-pegging scheme in operation, the market recorded a decline in prices. The inescapable result was that the Indo-American parity difference widened from .99 cent per lb. on 1st September, 1938 to 1.48 cents on 23rd March, 1939. Secondly, President Roosevelt emphasised in a special message in April, 1939, the administration's desire to increase cotton exports with the help of subsidy and the Indo-American parity difference widened further to 1.58 cents on April 27th and 2.33 cents on June 29th, 1939. These facts go to show that artificial price regulations exercise a powerful influence on parity differences.

Tariff Walls: Import duty on raw cotton has its repercussions on difference in price of cotton. This will be particularly obvious in the case of long staple cotton in India. If the foreign cotton has to pay import duty that amount should be added to its price before arriving at parity dif-

ference between the two. Any import duty imposed on outside growth would tend to keep the internal price of better varieties relatively higher. It will also render the imports of foreign cotton uneconomic and unremunerative for spinners. For example imports of foreign cotton in India declined from 7,27,000 bales in 1937-38 to 4,01,000 bales in 1938-39. This decline was largely due to the doubling of import duty by the Government of India with effect from 1st March, 1939. The New York-Bombay parity difference shrank from 1.48 cents per lb. to 1.22 cents during April, 1939. This really meant a parity difference of 3.39 cents per lb. due to the higher duty of 2.17 cents per lb. This amply explains the importance of tariffs in parity calculations.

Technical Factors: Mention should also be made of the set of factors that sometimes influences cotton prices and causes them to remain high or low affecting thereby the parity difference. These are known as 'technical factors'. Among them the most conspicuous are the attempt at corner, squeeze, etc. Manipulation at times affects the parity difference. An attempt to tamper with any particular position of a futures contract by manipulating the spot rates has also a temporary effect on price and parity difference is disturbed in consequence.

General Outlook: World-wide business conditions and economic as well as political outlook are some of the general factors that affect parity difference.

Local Conditions: Local conditions also affect parity difference. The effect varies with the higher or lower level of prices in a given market.

3. RELATION BETWEEN PARITY DIFFERENCE AND BADLA BUSINESS

Having explained the conception of parity difference and the factors responsible for the same, we should now determine its relation with the badla business. For this purpose, we shall have to define the word 'badla' or what is known in other countries as 'straddle'.

Definition of the word 'Badla' or Straddle: The term 'badla' or 'straddle' is constantly used in the Bombay market particularly since the World War of 1914-18. A 'badla' operation consists of any transaction which implies bridg-

ing the gap or covering the spread between the prices of the two futures contracts, by buying the one which seems comparatively low in price at the moment and selling the other which is relatively high.¹ Badla operations also consist of simultaneous buying for delivery in one month and selling in another in the same market. For instance, suppose a dealer in Bombay buys 100 bales April/May Broach futures at Rs. 200 per candy and sells the same quantity of July/August Broach futures at Rs. 210 per candy. Then whether prices rise or fall as a whole, he gains if the difference between the two prices becomes less than Rs. 10/- in this case, but if it becomes more, he loses. On the other hand, had the dealer bought July/August at Rs. 210 and sold April/May at Rs. 200 he would have gained in the case of the difference increasing and lost in the case of its decreasing. Badlas are nothing but operations based on differences between the prices of two different or same qualities of cotton or two different markets such as Bombay and Liverpool. The dealer in badla may operate in one way so as to gain if the difference upon which he is speculating increases, and in another way so as to gain if the difference decreases. His gains or losses are in no way affected by upward or downward movements of the market as a whole, because, he is mainly concerned with the difference or what is known in India as 'Gala' between the prices of two contracts. Badla business therefore is regarded as one of the most highly specialised forms of trade activity on the leading futures markets, like Bombay, New York, etc.

Various kinds of Badla Operations: There are various kinds of badla operations: (a) A badla between a near and distant month in the same market,² e.g. April/May and

"A straddle means a transaction in cotton for Future delivery in which contracts are made either (i) for the purchase of a certain number of bales of one growth for a certain period of delivery and for the sale of an equal number of bales of the same growth for another period of delivery, or (ii) for the purchase of a certain number of bales of one growth for a certain period of delivery and the sale of an equivalent or approximately equivalent in weight of another growth of the same or another period of delivery." Rules of the Liverpool Cotton Association: Rule No. 27.

²This is strictly known as 'Switching'.

July/August Broach futures in Bombay, (b) A badla between two different kinds of cotton, say, Broach and Oomra, in one market like Bombay or American Middling and Uppers in Liverpool, (c) A badla between two different markets, say, buying Broach in Bombay and selling 4F in Karachi or buying Sakels in Alexandria and selling Middling in New York, (d) A badla between two different commodities, i.e. purchase of one commodity like cotton against sale of a different commodity such as wheat or jute, both of which should normally be closely allied in price movements. This may be in one city, country or between different countries. For example, sale of cotton against purchase of seeds in Bombay or sale of cereal like Barley and Oats in Chicago against purchase of cotton in New York. Thus, there are four main kinds of badla operations.

Spread between spot and futures prices: There is still another type of badla business in existence. The badla between prices of futures and spot cotton is commonly called 'a spot-futures spread'.¹ Suppose Broach futures contract is ruling at Rs. 275 and the spot cotton is higher or lower than futures on account of various internal causes such as supply relative to demand for a specified growth. Against the Broach futures, Surat, Navsari, etc. can be tendered at market differences. But due to better demand for these varieties they may command higher premium on spot. Further, suppose the supply of Dhollera is greater than trade requirements. It will then be discounted in spite of the fact that it is tenderable against the Broach contract and it must fetch the prevailing prices. This difference in either premium or discount is known as 'spot-futures spread'.

Badla Business and Parity Difference: Parity difference and badla business are interconnected and go together. One affects the buying and selling operations in different markets and the other helps in bringing about the necessary adjustment of prices. The purpose of badla operations is to take advantage of a temporary disparity in anticipation of what should logically happen. Badla is thus an operation whereas parity difference is a guide by which operators come to know of the most attractive con-

¹Refer to Chapter on 'Hedging'.

tract position or market. Their relationship may be expressed by saying that parity difference gives rise to badla business which in turn aids in the maintenance of normal price differences between different months and markets. Badla business refers to trading operations while parity difference points out differences in prices of two kinds of cotton. The entire badla business is based on price differences since it depends upon the calculations of parity differences. Parity difference between two markets or positions of contracts on a certain date induces a trader to enter into badla business as recommended by the then ruling price differences. Thus, parity difference and badla operations are closely related terms; one is the cause and the other is the effect.

4. BADLA OR STRADDLE OPERATIONS BETWEEN THE WORLD MARKETS

Position of Badla Business in other than cotton markets: The position of badla business in other than cotton markets may be reviewed here. It is not only in the cotton trade that badla operations are put through but this kind of trading is carried on in all organised markets of the world whether for commodities or securities. The terminology differs according to the business. On the stock exchange, badla business is known as 'arbitrage' dealing. In the grain market, it is called 'spreading'.¹ Hence, they can be called more or less synonymous. An operator dealing in this kind of business is known as a 'straddler' in cotton trade, a 'spreader' in grain trade and an 'arbitrager' in stock and securities.

Badla or Straddle Operations within a country: Badla business finds its real field within the limits of a particular country. The advantage of carrying on badla transactions within a country is that the dealer has not to refer to the exchange rate and such other factors. For example, Ahmedabad traders sell in Bombay when the two prices go out of line and buy in Ahmedabad. In such cases the operator may be prepared to take or give delivery against his badla operations at current prices, because, he believes that by the time of delivery, Broach will have higher price or because, at some point before delivery date he will be able to enter into a reverse transaction at a profit. In

¹Stamp Report: 1931, p.32.

Karachi, dealers sell Broach in Bombay against their purchase of 4F. This entails a conversion of Karachi maunds into Bombay candy. If 4F rules at Rs. 34 on 3rd January 1940, they work it out at Rs. 324 per candy in Bombay. Suppose the Broach on that date is Rs. 320. There is thus a price difference of Rs. 4/-. This may not be in accordance with the assumption of normal parity difference and badla business takes place. Moreover, regular badla business is going on between two different growths of the same commodity in the same market. Suppose a merchant in Bombay thinks that Oomra is lower and Broach is higher than warranted by a normal spread between the two contracts. He buys Oomra and sells Broach against it. For example, in 1938-39, a feature of the season was the behaviour of the Oomra contracts which remained very firm in comparison with Broach owing to the serious damage done to the crop by unwarranted rains and hail storms during October 1938. As the season opened the Broach-Oomra spread stood at about Rs. 18. It narrowed down to Rs. 14 at the end of the calendar year. On 25th March, 1939, it stood at Rs. 11 and on July 25th 1939 the Oomra was sold at a price only Rs. 3 lower than the Broach. Thus, it offered a good field for badla activity between the Broach and Oomra growths. Apart from India, badla business in the same way is carried on in the U.S.A., Canada, England, the Continent of Europe, etc.

Straddle or Badla Business Between any two overseas markets: Reverting to badla operations between overseas markets, it may be pointed out that the business is being done between (i) Bombay and Liverpool, (ii) Bombay and New York, (iii) Bombay and Alexandria, and so on. There is the risk of fluctuating exchange rates in all cases except between Bombay and Liverpool in which case the Rupee is linked with the Sterling. Hence, the Bombay-Liverpool badla is more popular in India. Since England went off the gold standard, and since the U.S.A. devalued the Dollar, complications are being experienced by straddlers. It is believed that since September, 1931, parities dance according to the whims of the exchange. In spite of this, badla business between any two foreign markets is going on to a great extent. Of course, it will be difficult to know under such conditions, what is a normal difference at a

particular time. But to an operator, normal difference is usually the spread or difference most likely to develop. Thus, futures markets of the world afford an opportunity to this special class of traders who can intelligently enter into badla transactions to their advantage in all markets of the world.

Volume of Straddle or Badla Operations in the Indian markets: Since Badla business either within the country or with the foreign markets is regularly carried on all over the world, its volume is bound to be considerable. Various estimates have been made in this connection. Badla business in Bombay is roughly estimated at two or three lakhs of bales in each contract with each leading market like Liverpool or New York per annum. It should be stated that this figure only refers to the volume between foreign markets. No consideration is given to the amount of badla business within the country. Badla operations between Bombay and Karachi might amount to about a lakh of bales per year.¹ Similarly, account should be taken of the badlas put in with Ahmedabad, Surat, Indore, and the Mahajan Association in Bombay. Though exact estimates are impossible in view of the information received by us, the total figures can be roughly estimated at 8 to 10 lakhs of bales of badla business within the country.

5. UTILITY OF STRADDLE OR BADLA OPERATIONS

Prices in different markets tend to become such that an operator can buy in one market and immediately sell in the other at a profit. If the price differences widen or narrow appreciably without apparent changes in costs, a dealer would get an opportunity to do badla. Operators in the trade realise the essential unity of all markets of the world and they are quick to take advantage of any disparity between them.

Economic Functions: The important functions of badla business are (i) to keep the prices in different markets in line, (ii) to act as a connecting link between two prices, and (iii) to cement the spread between spot and futures prices. Taking the first function, it is the straddler who by his operations keeps the prices in different markets in level. Secondly, badla business tends to minimise as far

¹Personal investigation.

as possible any price differences which are not normal between the two contracts. Unusual pressure on one market or contract occasioned, perhaps, by the marketing of a crop may depress it below its normal relation to the other. The straddler is constantly watching for such price disparities and operates accordingly. Finally, when spot futures price relationship deviates, it is the badla business that tends to bring it back into line and hold it there. This continual alignment and realignment of prices reflect not only present prospects but future conditions as well. The character of badla may be of short and long terms. Badla transactions may be completed by actual delivery or by offset. But the economic functions of badla business lie in the just determination of differentials between localities, positions of a futures contract or two different contracts and in some cases, different kinds of products of an analogous nature.

Facilities for Badla or Straddle Business: To realise these functions straddlers are given various facilities. By far the greatest facility afforded to this kind of trading is the natural difference in the timings of different markets. On account of this difference in time, Liverpool opens at about 2-30 p.m. in Summer and 3-30 p.m. in Winter according to Indian time. Opening of the New York market is late by 8 to 9 hours compared with India. Moreover, some special or extra facilities in the form of a special commission are granted to straddlers in most of the leading exchanges. This commission is known as 'a badla or straddle commission.' It amounts to one-half of what it costs to buy or sell outright two futures contracts. Further, a smaller amount of margin is required on badla transactions than on ordinary futures contracts. Thus, apart from the natural time differences a straddler is given every possible assistance by different exchanges.

Qualities Required of a Straddler: The badla business necessitates a constant touch with the foreign markets. The straddler must be a man of intelligence and expert in grasping market conditions. He should generally be alert regarding any developments affecting the relations between any two markets. Not only must the straddler be familiar with the usual factors affecting the price, but he must also have an up-to-date knowledge of shipping costs,

storage expenses, physical conditions of deliverable supplies, fluctuating exchange rates and so on. Besides, badla business demands experience and study. He must have a clear idea of proportions between any two contracts. If a straddler sells in one market a certain quantity he will have to buy proportionately in the other. For instance, the Indian proportion for badla operations is generally 500 bales in Bombay against 400 bales in either Liverpool or New York. He should be guided by the facts available, for, his success depends primarily upon knowledge of essential facts. There are certain firms in Bombay as in other markets which make a speciality of badla business and devote their full time to the work. There are some whose business is in another field but they place an occasional badla transaction and are considerably handicapped by a lack of detailed knowledge of this kind of business. Thus, because of its highly technical nature, straddlers in India are comparatively few in number.

Uses of Badla or Straddle Operations: Since badla operations affect the movements in different markets or of different positions of contracts, farmers, spinners, shippers and merchants, take into consideration this element of price differences and operate accordingly. Such transactions have their justification in the protection they give to all these various interests. Farmers would like to sell in what they think to be a relatively high market. At the same time, spinners would like to put their order in what they consider to be a comparatively low market. Shippers who have cotton hedged in Bombay may transfer it to Liverpool when Bombay becomes high. The spot interests can move their hedges and get the result aimed at by entering into badlas. Commission agents can use this method to guarantee carrying charges from one delivery month to another. Others may enter into badla business in order to safeguard their positions. For instance, mill buyers may have bought April/May contract in October at Rs. 250 to cover an order for goods to be delivered at some distant date. Before they buy cotton to fill the orders they may find that April/May has gone up by about Rs. 25 while July/August has advanced by only Rs. 15/- . They may therefore sell their April/May and buy July/August and make a profit. Speculators also do a great deal of this

business so that such transactions account for much of the badla operations on a futures market like Bombay. Thus, badla business can be put to a variety of uses by a number of trading interests. In certain cases deliveries are also ultimately resorted to, otherwise, when a purchase of one contract and a sale of another are made, both remain open, to be closed by a subsequent transaction. In many situations, badla operations cannot be completed by actual delivery, e.g. buying of the Middling in New York and the selling of the Broach in Bombay and therefore, generally, these operations are set-off before the arrival of the due date.

6. INFLUENCE OF BADLA OR STRADDLE BUSINESS

The object of these operations is to take advantage of temporary conditions which may cause two markets or two delivery positions in the same market to sell at wider or narrower differences than commercial conditions warrant. The obvious purpose therefore is to benefit by the comparative widening or narrowing of the difference in prices between purchase and sale.

Its Advantages: There are many advantages claimed by the supporters of the badla business: (i) Badla operations modify a tendency towards run away price movements in any specific delivery position. (ii) These operations serve the purpose of eliminating undue fluctuations which may tend to put the market out of line with its commercial surroundings. (iii) They serve as a connecting link in the price level. (iv) They make a market broad, active and mobile for hedgers. (v) When intelligently employed, they aid in bringing prices into proper balance both with respect to time and position, i.e. they tend to bring back the two markets or two contracts into proper alignment. (vi) They tend to prevent the development of unhealthy situations like manipulations of prices, corners, squeezes, etc. and (vii) They make it possible to carry on marketing smoothly and economically.

Objections Against Badla Business in India: The usual criticism against badla business may be thus stated: (i) During the active hedging period in the U.S.A. prices tend to show weakness and some operators buy in New York and sell in Bombay where prices may even be lower on account of the double pressure of hedging and speculation.

(ii) All badla operations result in artificial supply and demand because there may not be the least intention of taking or giving delivery. (iii) Badla business is unproductive, since, it neither helps in making nor in disposing of the crop. and (iv) Badla business has depressed the Bombay market.

Observations: Prices in the various world markets and in any given market for the several delivery months always bear a definite relationship which is primarily based on existing commercial conditions. Apart from the variations in differences caused by broader commercial developments operating over longer periods of time, there are numerous transitory fluctuations in prices caused by the appearance of sudden waves of buying or selling in one market or another. This in turn may have been caused by a number of local and general factors. But such a wave of buying appearing in one delivery position of a futures contract in a given market would tend to strengthen prices for that position relative to others and here a straddler steps in. Through his badla operations the effect of the heavy buying is spread throughout all the delivery months in that market. The tendency therefore would be to lift prices in that market relative to prices in other markets. Similarly, in the case of selling orders, the effect would be the reverse. Obviously, as a result of badla operations undertaken by those who are qualified by virtue of experience and information, the prices of different futures contracts either between two different markets or in the same market will be brought into line. These prices in turn are more likely to reflect common opinions as to the general conditions of supply and demand for cotton. The badla business is therefore a very important trading activity in the futures markets of the world. In fact, badla operations play an important and useful part in helping to maintain a well-balanced world market and prevent violent fluctuations in a given market.

Again, even in the absence of futures trading system in the world, badla business can be carried on. With the means of international communications now afforded all over the world, different markets when not hampered by extraneous conditions would tend always to seek the same price level. Undoubtedly, as a rule, commercial people

will choose to buy in a market that appears relatively low for the time being and sell where the prices rule high. Similar will be the case with different positions of the same contract or two different growths in the same market in the same country or in different countries. This action on the part of a straddler tends to ensure that prices in markets which are in close communication shall differ only by an intrinsic difference in quality plus the cost of transport, etc., from one place to the other and shall remain in level.

CHAPTER XI

COTTON PRICES

IT is said that the knowledge of the trend of cotton prices is more important than any other single factor to a cotton man. This raises the question regarding the causes of high and low level of prices. The spot situation may be and often is an important factor for particular grades of cotton, but the general level of cotton prices is determined largely in a futures market which tries to adjust it probably a year ahead.¹ It should therefore be our object to analyse the movements of prices as registered in a futures market, e.g. the Bombay cotton futures market and ascertain how far they can be successfully forecasted in advance by the dealers in futures. For this purpose we need to take into account the major and minor factors affecting prices in a given market and then to consider difficulties or points involved in such a forecast.

1. LONG TERM FACTORS AFFECTING COTTON PRICES

Taking first the long-term factors affecting prices, it may be said that cotton futures are bought and sold in just the same way as any other article ordinarily traded in. Hence, the fundamental factors affecting the price of cotton futures are the same as those in the case of any other article, viz., (i) cost of production, (ii) general level of commodity prices, (iii) demand, and (iv) supply.

Cost of Production: The nearest approach to what is called 'cotton prices' is the cost of production. It includes the necessary costs for land, labour and capital and an additional payment for the efforts of the grower just sufficient to keep him from either increasing or reducing the

¹"Since it is in the futures operation that anticipated needs are met and since by the mechanism of straddles, such needs are averaged out and communicated to the spot market, it may be said that the futures markets determine the prices." U.S. Department of Agriculture: Technical Bulletin No. 50, 1928, p.3.

size of the crop. The cost of producing cotton varies widely from field to field and from country to country, but there is a minimum figure below which a farmer cannot afford to work the less productive area. It should, however, be made clear that at any given time the price of cotton bears no relation whatever to the cost of growing it. Once the crop is produced it must be sold for whatever it brings regardless of the cost of production. This may be qualified by the possibility of withholding a portion of the supply from the market in years of lower prices and selling it in those of higher prices. The net effect of such a procedure is to iron out the extreme variations in prices and make them conform more closely to the production costs over shorter periods of time.¹ It is thus only over a long period of time that such a relationship is evident.

General Level of Commodity Prices: At what level this cost of production happens to fall is determined by the general level of prices of all commodities. The general level of prices is determined by the supply and demand situation along with the purchasing power of the monetary unit in terms of which the prices are expressed. In a trade which is so largely international in character, questions of the rate of exchange inevitably achieve greater significance and now that so many countries are off the gold standard, including every major cotton growing country these questions are gaining unusual importance. In connection with this factor there are three price movements worthy of note; (i) changes in the general level of prices of all commodities, (ii) the gradual change in the relation of cotton prices to those of other commodities, and (iii) short-term fluctuations. The general trend of price changes from one period to another, and is responsible for a large part of the change in the price of a particular commodity like cotton. The changing business conditions usually referred to as 'business cycles' also cause fluctuations in the price of cotton through their effect on the ability and disposition of buyers. Short-term fluctuations are more or

¹Very often the producers of cotton make no adequate adjustments in the acreage for the following crop and another large supply comes on the market to add to an already inflated carry over. Under such conditions prices are often depressed to extreme low levels, other things being equal.

less irregular. They originate in or turn upon a wide range of causes relating to demand and supply. It is thus a matter of common knowledge that with generally unchanged crop situation, the improving trade conditions lead to rising prices for a particular commodity and the declining conditions lead to falling prices, other things being equal.

Demand for Cotton: The demand for cotton is determined by two general factors: (i) the need of the people and (ii) purchasing power. There will be a demand for cotton so long as people need cotton and possess means to purchase it. Cotton falls in the list of what economists call 'necessities'. Its demand is therefore supposed to be fairly stable as well as relatively inelastic and every change in price should not be thought of as a change in demand.

Other factors affecting the demand for cotton are: (i) an increase in population with corresponding increase in needs for cotton, (ii) industrial developments along with new and extended uses for cotton; and (iii) changes in business conditions, in styles and in competition of other textile fibres. The influence of all these factors is reflected in changes over a period of time and is largely responsible for the general trend in cotton consumption. Again, the demand for cotton consists of two elements; viz., active demand and potential demand. The former refers to the activities in a spot market and the latter to the activities in a futures market. The actual demand for cotton is measured by the consumption in mills and by exports. However, the changes in mill consumption and in exports may not be accurately synchronised with changes in the market demand for raw cotton on the one hand or with changes in the demand by ultimate consumers of cotton goods on the other. Hence, such changes in movements may have very little relationship to purchases of raw cotton or to consumption by mills. The forces on the demand side in general exert their influence on the market through the channels both of consumption and of speculation. The immediate price reaction is the same in kind, regardless of the speculative purchase or the actual purchase for immediate or future deliveries.

Supply of Cotton: It is customary to say that the price of an article is determined by its 'supply and demand'. Being interdependent, one cannot say that either the

demand or supply is the more important factor in determining the price. It can, however, be ascertained which, in a given situation, is more influential in causing prices to change. Since the demand for cotton is fairly constant and comparatively inelastic, changes in supply are rather important accounting for major price variations. The chief characteristics of cotton supply are: (i) The additions to supply occur but once a year. (ii) Supply is subject to vagaries of weather such as, drought, excessive moisture, storms, frost, floods, etc. (iii) The plant is subject to disease such as rust, weevil and an endless as well as ever-changing list of other forms of pestilence. (iv) Supply is widely distributed all over the world in as much as millions of farmers of different countries produce cotton. and (v) Several months elapse from the time of planting to the time of harvest. For all these reasons there remains an uncertainty of what the season's crop will be.

The supply of cotton usually consists of two elements, (i) visible and (ii) invisible. A visible or actual supply may be fairly accounted for. An invisible or potential supply is far more difficult to estimate. It continually injects uncertainty in estimating the total supply. The visible supply takes into account figures of cotton in transit and afloat, at terminal points, in store, and in the hands of mills. The figures of invisible supply cannot be accurately availed of, because, they consist of those portions of cotton which may be in the hands of farmers and upcountry dealers. Moreover, figures of new crop are nothing but estimates though they serve as an important index of future supplies. The supply thus includes four items: (i) Carry-over, (ii) production of the current year, (iii) prospective crop of the growing season, and (iv)* stocks of manufactured goods. Over a long period of time, availability and volume of substitutional materials should be taken into account.

Each of these items varies in importance from one season of the year to another. For instance, in India the size of the total current crop becomes fairly certain by April and this plus the carry-over makes up the supply of the Indian cotton for the season. The next crop is also a factor on the supply side. But its influence on the price of spot cotton at this time is negligible. During this period

the price is therefore largely a result of adjustment of a known supply to the strength of demand. This adjustment is usually made before the close of the period. It can also be made earlier by the trade. The statistics of value in this period are those showing: (a) April estimates of production for our cotton, (b) the carry-over, (c) business conditions, (d) mill takings, (e) mill consumption, (f) stocks of piece goods, (g) activities in the piece-goods market, and (h) shipments of cotton and cotton piecegoods.

Then comes the pitching of the new crop and adds an uncertainty to the supply side which has an influence on the price of the old as well as the new crop. During this part of the year the market is particularly responsive to all influences affecting the growing crop both in India and the U.S.A. By this time, the disposal of the old crop has become fairly certain. The U.S.A. Reports of acreage and crop conditions and the 'Cotton forecast' issued by the Department of Commercial Intelligence and Statistics, India; constitute one of the most important factors affecting price. Among the day-to-day influences nothing equals weather reports in importance. The figures of peculiar significance at this time are the prospective yield, the ginnings, the movement of the crop both into interior towns and exports, whether conditions affecting both, production and quality of the crop and mill takings. Changes in the supply situation brought about by changes in estimates of the present and prospective size of the crop in the U.S.A., India and in other countries result in considerable price movements. The year 1937-38 is the case in point. A substantial proportion of the drastic decline in cotton prices early in the season 1937-38 was accounted for by increases in the estimated size of the United States crop for 1937-38 which turned out to be 18,946,000 bales, a record for all time. This bumper crop had a most depressing effect on raw cotton prices all over the world. Thus, in any given year, the supply of cotton already produced or in prospect together with the various conditions of demand, both actual and potential, tend largely to determine the price of cotton futures. The change in price due to changes either in supply or demand is essentially an annual movement. Hence, these principal forces may be

regarded as long-term factors causing the major movements or long-time fluctuations as opposed to short-term or minor variations in cotton prices.

2. SHORT TERM FACTORS AFFECTING COTTON PRICES

Short-term or minor variations are the results of a fairly large number of causes relating to one of the two main factors of supply and demand. Occurrences of these variations may be of a few months' or a few days' duration. This may even be of a few moments' duration. Thus, the period covered by one of these movements as well as its intensity vary from time to time. Short-time variations grow out of the fact that the crop is harvested only once but consumed throughout the year. There should be someone to carry forward the supplies from the time of harvest to that of actual demand. It requires organisation and expenditure in the form of storage equipments, insurance, handling charges, etc. At any particular time, these variations in price may depart far from the costs of carrying cotton from one period to another.

Market Operations: The price in a futures market at any time reflects the trade opinion which is expressed through the character of purchases and sales made. The quantity of futures available for trading is an indefinite amount. Futures can be multiplied to any amount by the operators through the facilities afforded on the market. The trading becomes simply a matter of setting up agreements in which one side assumes a long position and the other a short one. Some of these contracts are closed even five minutes after they are made. There being practically no physical limitation to the rapidity with which transactions are made, trading in a futures market ostensibly depends upon the financial strength and nerve of operators. This fact has an important bearing upon the possible influence which futures operations exercise upon prices. If by circumstances, one side has the support of strong financial interests and the other has not, it is likely that prices will move temporarily in favour of the former. Those on the weaker side may have ample evidence to support their views but prices will not move in their favour unless and until an additional support or opposition is encountered. So long as the enthusiasm for higher prices

is rising, prices are likely to advance. When this general enthusiasm wanes or financial support on the buying side becomes inadequate, a radical readjustment is sure to follow. A decline may be the result of either profit taking on the part of long speculators, a movement of bear speculators selling for a decline, lack of interest on the part of mills and exporters or the pressure of hedging operations. If there is a rise, it may be due either to a movement of the bears to cover previous sales, a speculative bull movement, increased activity on the part of mill buyers or the lack of offering spot hedges in the market.

Again, prices are affected both by the manner of trading and the amount of transactions put in. In general, a temporary advance or decline in price may be the result of traders increasing their long positions or covering their short position in the market. But how far this is true is open to doubt. Some believe that large-scale trading tends to cause price movements in our market.¹ Others question it and express that perhaps price movements cause large-scale trading. The fact lies half way between the two views. It appears that the Bombay market moves through the force of a third factor which affects both, the price and large-scale trading. This third factor seems to be the influence of the daily news. It is probable that these day-to-day movements in price are a product of both large-scale trading as such and the important news of the day reflected through the trading of the market as a whole. If the principal news items on our market, for a certain day are examined it will account for the day's upward or downward trend of the market. It is possible that one or more leading speculators would trade that day either in response to the movement in price or in anticipation of it. Many a time, however, the news of the day does not supply an adequate explanation of the course of prices. On such days, market operations grow in relative importance as a cause of price variations.

Market News: If traders are in a position to sort out items of fundamental importance from the enormous mass of material circulated and to make timely decisions, prices will reflect basic market conditions. Otherwise the prices may move a long way out of line before corrective forces

¹Personal talks.

crop up. All shades of news are thrown together to be individually weighed by traders and then reflected in price through their composite judgment. In this process, the elements of time and opinion are all important. As for example, all traders in India do not receive all the items of information at the same time. Some rely on trade journals and periodical reports, some on telegraphic reports and newspapers and some on sources such as gossip, rumours, tips, and astrological findings. In order to receive in time important information a trader has to undergo a lot of trouble and expense. The degree of individual judgment depends upon the efforts of the trader in this direction. It therefore varies widely between the trading interests. As a result, the market becomes a many-sided affair fluctuating continuously in response to changing opinions. Moreover, on a futures market, ill-founded news play their part in affecting the price. If the information is lacking in accuracy, the item of news becomes a price factor. At times, it forms the basis of trading activity. Both harmful and helpful news are frequently circulated. To what degree a particular piece of information is inaccurate or misleading is difficult to ascertain, but it should be admitted that it has some influence on the market particularly in periods of high and uncertain prices. Further, the price is frequently pulled out of line from its normal course by false information of various kinds, such as, private estimates of cotton production, rumours concerning prospective demand, etc.

Public Participation: A factor frequently mentioned in connection with prices on an organised market is that of public participation. The word 'public' usually refers to individuals having three characteristics, viz., (1) occasional trading, (2) trading with small or moderate limits, and (3) bullish attitude, i.e. trading in the hope that prices will rise. This body of traders comes into prominence during periods of rapidly rising prices. Each added advance attracts new traders to the market. At times when prices are carried to extremes, new capital is not forthcoming in sufficient quantities to maintain confidence, and those already in the market have spread their capital over too wide an area. A reaction in price is all that remains to complete the cycle and liquidation with a complete col-

lapse follows. Its influence is to drive prices too high during the boom and then to abnormally depress to a low level. However, it is not always the case that the public in general act in this manner but those liable to sudden and extreme excitement do so. Contrary to the general belief that the public buys as prices advance and is forced to sell in declining market conditions, it may and does happen that when prices advance, the public becomes sellers rather than buyers and vice versa.¹ A possible explanation for this is that in temporary advances, selling by public occurs with the view that the position will shortly be reinstated at better figures, and when prices decline purchases are made by the public in the belief that the break has run its course. For this reason, it may be noted that the public participation becomes a factor influencing the short-term movements of cotton prices only in periods of market excitement, and it cannot be regarded as a factor calculated to influence the price under ordinary circumstances.

Hedging: It is generally believed that hedging operations affect prices particularly during the marketing period. Hedges in the form of future sales reach large proportions during the season when the crop moves and vary considerably between the various hedging interests. For instance, when cotton is in the field and about to mature there comes what is called 'hedge pressure' in the market. Later on, when actual cotton is sold these hedges are simultaneously lifted. Hence, if prices tend to be depressed at the time of hedge sales, they will tend to go up when the hedge purchases are made. To what extent hedging is itself a price factor is therefore difficult to determine. At times, it is certain that the influence of hedging is felt and the term 'hedge pressure' serves as a guise for the real cause of price movements.

Badla Operations: Badla operations of hedgers and speculators are considered a further factor influencing the price. The theory upon which straddlers operate is that when prices between the two markets, between the two months or between the spot and futures contracts get out of line, they buy what is relatively low in price and sell

¹Personal observation.

what is comparatively high. The general effect of this operation should be to bring the two prices back to their normal alignment. But at times, badla operations may tend to cause high prices to go still higher and low prices to go still lower and thus become a factor unduly influencing the course of prices.

Other Factors:

(a) **Technical Conditions:** A futures market is subject to many technical trading conditions affecting the price at which transactions are made. Apparent trade activities can be created by means of 'Wash sales', 'Matched orders', 'Squeezes', 'Corners' and various other forms of tampering with the market. Another type of transactions calculated to have some effect on price refers to what are known as 'accommodation or crossed orders'. In India it frequently happens that transactions are made privately. For instance, a commission house in Bombay receives orders from different customers. The convenient way adopted by the house in the disposal of these orders is that the transactions of buyers and sellers for the same amount, price and futures are accommodated or crossed without reference to the ring. This may tend to prevent the market from registering price influences.

(b) **Option or Teji-mandi transactions:** In those markets in which teji-mandi or option business is permitted, the prices are at times influenced by such operations, at least for the time being. This happens on account of the fact that when the options mature, there will either be a large demand or a big supply of a particular futures contract and its price is bound to be affected to that extent.¹

(c) **General Economic Situation:** Another factor that affects the price of cotton is the general economic and business conditions. The most widely accepted principle in connection with the price is perhaps the doctrine that changes in the stock market lead to similar changes in the volume and direction of business activity. As a matter of fact, it is usual in the cotton trade to regard the movements of the stock market as an index of coming events in other markets.

¹Refer to Chapter on 'Teji-mandi or Option' business.

(d) **Political Developments:** It is a matter of common knowledge that the political developments both national and international affect the price for the time being more often than any single factor. For instance, in recent years, the rearmament programme all the world over appears to have been the factor of considerable importance in causing the price movements. In the same way, rumours of conflict between nations, or military pacts and other similar items of information influence prices on a futures market.

(e) **State Control:** The availability of supply as well as the total quantity in existence affect prices over relatively short periods. With a given total physical supply in existence, the quantity immediately available in the market at specified prices may be reduced by the State price-pegging policy or by other forms of organised control with the result that prices may be strengthened temporarily. For instance, in America the restriction of output in 1933 caused an upward movement of cotton prices in 1934. Similarly due to the Government activities the prices of American cotton were maintained at a relatively high level for the greater part of the year 1935. In this connection, instances may be cited of the activities of the Farm Board and the Cotton Stabilisation Corporation. The passing of the Bankhead Cotton Control Act in 1934 and the Soil Conservation Act of the U.S.A. point to the same direction. Without entering into details it may be mentioned that the price of American Cotton was strengthened by loans to the farmers till 1938 and at one time the U.S.A. Government had on its hand 11 million bales of cotton. In 1939, while thus buttressing the internal price of cotton the U.S.A. Government subsidised exports of cotton to the tune of 2 cents a lb. Similar arrangements have been made by the Egyptian Government to uphold the price of Egyptian cotton.

(f) **Spot Transactions:** Last but not the least important factor affecting the price of cotton futures is the influence of spot transactions. The fact that a futures contract can be converted into a spot transaction on the date of its maturity accounts for this. The general changes in prices of spot cotton are usually associated with more or less similar changes in prices of futures, not so much be-

cause one is determined by the other, but because they are both determined largely by the aggregate of the present and future conditions of supply and demand. For instance, a rise in the price of spot cotton may mean that there is a shortage of present or anticipated supply in the near future. Conversely, a rise in the futures prices may denote the view of the dealers that the total available supply is insufficient for the season should the present rate of consumption continue. Thus, the price of cotton futures on the surface represents a point of equilibrium between the bids and offers of those actively engaged in the marketing of cotton.

So far as the short-term factors are concerned it may be concluded that the short-term variations in the price of cotton are the products not of one, but of a variety of causes. Generally speaking, these short-term factors are not the fundamental forces determining the price in the long run, but they are certainly factors determining the precise points for the purchase or sale of cotton for a given day, week or month. For this reason, they are of greater concern and more important to an operator in futures than any other single group of factors affecting the price of cotton.

3. ANALYSIS OF FORECASTING COTTON PRICES

A cotton man usually concerns himself not only with the price that will result from given circumstances of supply and demand, but also the probable limits within which fluctuations will be confined, because, if these predictions are correct, he turns out to be a successful operator in futures. The problem of estimating the probable price is not an easy task, since, it resolves itself into making an estimate of what the world supply and demand will be.

Factors to be taken into account while forecasting: Factors which influence the price of raw cotton in the world's markets and require to be accounted for while forecasting are as follows: (i) Causes bound up solely with the supply and demand for cotton, either spot or futures at any given time and (ii) Financial causes. Under the first, one has to take into account the statistical factors relating solely to raw cotton which include (A) Annual Statistics and (B) Current Statistics. Annual Statistics include (a)

the world's carry-over from the previous year at the close of the season, (b) the raw cotton produced in the growing season all over the world, and (c) the world's annual consumption in the cotton season. The Current Statistics include (a) the amount of cotton moving into sight any week from fields, i.e. the world's primary supply; (b) the amount of cotton forwarded definitely to the mills, i.e. spinners' takings all over the world; (c) the gain or loss between (a) and (b), and (d) the visible supply of cotton in the world. Under the second factor, important points are (a) Bank rates and (b) the rates of exchange. Besides the general method of studying the whole situation by the use of annual and current statistics and the history of cotton prices, there are a number of special methods which seem to isolate single factors and predict temporary price conditions. The most common methods amongst them are: (1) Chart study; (2) Weather-map reading, (3) Trading on direct information concerning the market position of leaders in the trade, and (4) Trading on gossips, tips, astrological beliefs, etc.

Statistics of world production of cotton and factors affecting it are of fundamental importance in an analysis of the cotton trade and prices. Their importance is due to the fact that the world production of the staple is subject to wide fluctuations, not only because of changes in acreage but also because of variations in yield per acre through natural causes. Hence, the volume of new supplies of cotton available to spinners of the world is constantly changing. The fluctuations in world production are necessarily reflected in the fluctuations in world prices of cotton. Records of movement of cotton are of importance principally as indications of demand for the staple, and of current or prospective consumption of it. Those covering movement from producing areas may indicate also the rapidity of harvesting and ginning and the freedom with which producers or distributors are selling.

Records of consumption rank with those of production as being of prime significance in the studies of cotton trade and prices. The world consumption of cotton does not vary from one season to another so much as does production, but it is subject to important fluctuations due to changes in general economic conditions, political develop-

ments and world buying power. It is also necessarily affected by changes in the supply and price of cotton and to some extent, by the competition of other fibres. Thus, the world's supply and demand, world's economic conditions and international political situations as well as local conditions are all bound up together in the problem of forecasting the prices of raw cotton in any country or in a given market.

Difficulties Involved in Forecasting: The forecasting of supply involves forecasting the acreage, the yield per acre and the quality of the crop. The official reports showing acreage, weather conditions, state of the crop, etc., issued by the Department of Commercial Intelligence and Statistics, for the Indian crop, by the United States Department of Agriculture for the American crop or similar official report of any other country do not attempt to forecast the acreage under cotton. It makes simply an estimate of the acreage under different crops as in June, in any year. This estimate is corrected in April in the case of India or in December in the case of the U.S.A. and a general forecast report of the acreage harvested, yield per acre and areas abandoned since that date is issued. The final acreage figure is arrived at by dividing the production by the estimate of the yield per acre. Again, forecasting the yield per acre involves many factors, weather being the prominent item. Other factors are (i) the use of fertilizers, (ii) labour, (iii) kind and number of pests and the effort used to combat them, and (iv) the price. However, it may be said that the methods of forecasting the crop are highly developed. Periodic estimates of conditions of the growing crop may therefore be made to serve as a basis of forecasting the probable yield.

It will be noticed that there is quite a large number of factors involved in forecasting the world's acreage and yield per acre which tend to frustrate any single attempt at forecasting the world's supply of cotton for a given season. Similar difficulties though of lesser degree are involved in forecasting the world's demand of raw cotton for any one year, since, it is very difficult to measure the world's potential demand for a given period. Now-a-days, difficulties in analysing the world's supply and demand are greatly increased by uncertainties as to the economic

policies of Governments with respect of such matters as control of production and monetary standards. Further difficulties in either arriving at the total supply of or demand for cotton lies in the fact that the world's economic condition and international political developments may tend to upset all our calculations about them.

Special Difficulties to be Encountered by a person attempting to forecast the price of Indian cotton: Apart from the common difficulties involved in forecasting cotton prices an operator in India has to face some special difficulties in attempting to forecast the price of our cotton. Taking first the supply side of Indian cotton, it may be pointed out that there remains much to be desired in the official estimates. Generally, there is a discrepancy between the official and private crop estimates. The figures of actual crop may be arrived at by two methods;¹

- (i) Actual crop: Net exports (exports-imports) of all cotton (by all routes) + mill consumption + village or extra-factory consumption + variation in stocks (stocks at the end of the season—stocks at the beginning of the season).
- (ii) Actual crop: Cotton pressed + loose (unpressed) cotton consumed in spinning mills + net exports of loose cotton (by all routes) + village or extra-factory consumption of loose cotton.

The application of the above formulae, however, suffers from certain limitations. For instance, statistics of cotton transported by road are not available in most cases. The estimate of 450,000 bales of cotton known as village or extra-factory consumption and used for domestic purposes such as hand-spinning, the making of quilts, mattresses, etc., is based on the results of enquiries conducted by the Indian Central Cotton Committee in selected areas only. Moreover, this estimate is assumed to be constant which cannot be safe for any given season. As regards variation in stocks, the figures cannot be claimed to be complete. Further, formula (ii) assumes that variations in stocks of ginned unpressed cotton and kapas is negligible, which however, is not always the case. For instance, the figure

¹Refer to Report on the Accuracy of the All India Cotton Forecast of 1938-39 season: I.C.C.C., p.1.

for total actual crop for the year 1939 was 6.2 million bales while the figure as per April 1939 All India Cotton forecast was 5.1 million bales. If the size of the average Indian cotton crop of about 6 million bales is taken as the standard, an error in an official crop report which would lead to an ultimate depression of Rs. 5/- in the price of a bale would cost the farmers three crores of rupees or more. A corresponding error leading to a similar rise in price would entail upon manufacturers and consumers a comparably heavy loss. This is unsatisfactory.¹

Accurate forecasting in case of our cotton is no more difficult than in the case of American cotton. But the method of issuing the crop reports adopted by the Department of Commercial Intelligence and Statistics is such that the statistics of total supply become available only when the season is over. For example, the first forecast of the 1939-40 crop showing an acreage of 14 millions under cotton did not relate to the entire cotton area.² It did not mention an estimate of the final outturn but gave the reports as received to a particular date. For this reason it is never possible to give in due course concise official details of the total supply of Indian cotton. These defects in estimate according to an enquiry conducted by the I.C.C.C. had their origin in the manner of estimating the area, anna valuation and standard yields of cotton. It may therefore be hoped that the present official crop estimate would be improved upon so as to render them most satisfactory by taking steps to remove whatever defects exist in them.

But this is not all. It is a well-known fact that the price of Indian cotton is not finally determined from conditions in India alone. It is said that the price of Indian cotton is determined not so much by conditions in India as by the price ruling in America. As a matter of fact, the price of American cotton not only leads our prices, but also

¹It is gratifying to note that the question of improving the accuracy of the official cotton forecasts has been receiving the close attention both of the I.C.C.C. and Provincial authorities for several years.

²Refer to First Cotton Forecast, 1939-40; released by the Department of Commercial Intelligence and Statistics, India.

dominates the world's cotton markets.¹ The main factor which determines the relative prices of American and Indian cotton is the success or failure of the crop in the two countries. In recent years the annual world production is of the order of 28 to 30 million bales. India's share is 5 to 7 million bales, while America contributes 12 to 14

¹Table showing price movements during the season 1938-39 in the markets of New York, Liverpool and Bombay.

Thursday	Wed. night N. Y. closing futures reaching in Bom. on Thurs. Morning [Cents per lb.]	Liverpool American expec- ted to open [d. per lb.]	Bombay Broach expected to open [Rs. per candy]
Sept. 1938			
1	8.28 (May)	4.79 (May)	159-0 (Apr./May)
8	8.06 "	4.67 "	156-0 "
15	7.81 "	4.65 "	152-8 "
22	7.98 "	4.69 "	153-8 "
29	7.80 "	4.82 "	152-8 "
Oct. 1938			
6	8.14 "	4.78 "	156-8 "
13	8.11* "	4.79 "	156-0 "
20	7.96 "	4.73 "	152-0 "
27	8.23 "	4.83 "	154-0 "
Nov. 1938			
3	8.26 "	4.84 "	154-0 "
10	8.24 "	4.75 "	157-0 "
17	8.28 "	4.84 "	158-0 "
24	8.26 "	4.83 "	158-0 "
Dec. 1938			
1	8.27 "	4.82 "	160-8 "
8	8.09 "	4.61 "	157-0 "
15	7.99 "	4.66 "	158-0 "
22	8.14 "	4.80 "	159-0 "
29	8.27 "	4.87 "	161-8 "
Jan. 1939			
5	8.25 "	4.89 "	163-0 "
12	8.08 "	4.75 "	157-8 "
19	8.17 "	4.78 "	156-12 "
26	8.16 "	4.75 "	154-0 "
Feb. 1939			
2	8.09 "	4.76 "	153-8 "
9	8.06 "	4.72 "	152-8 "
16	8.02 "	4.67 "	148-8 "
23	8.08* "	4.78 "	148-8 "
March 1939			
2	8.24 "	4.88 "	152-8 "
9	8.24 "	4.93 "	152-0 "
16	8.33 "	5.01 "	155-0 "
23	8.17 "	4.81 "	152-12 "
30	8.08 "	4.62 "	154-4 "

*Wednesday morning quotation.

million bales. The effect of changes in these figures of production on the import and export trade of India is very considerable, in as much as, the parity difference between the prices of Indian and American cotton widens or narrows with the production and consumption situations of the respective growths both at home or abroad. Of course, the seasonal differences in the parity are natural according to the vicissitude of demand and supply of the same, e.g. the sharp advance in the prices of American cotton following the restriction of output caused these prices to rise above their normal parity difference with Indian cotton. This situation favoured a large disposal of our cotton during the greater part of 1934.

With world consumption at about 28 million bales, India takes barely 3 to 4 million bales and has a surplus of 2 to 4 million bales to export. This surplus of Indian cotton which, as is well known, is generally of shorter staple and lower in quality than American cotton, is taken by foreign countries on its parity difference with the American cotton. So long as our country has to export a considerable portion of the Indian crop, the price of Indian cotton will be ruled by what the surplus of Indian cotton abroad will fetch.¹ Expressed alternatively, the price level of the Indian crop for a given season is determined by the exportable surplus. This level in its turn depends largely, but not entirely, on the price at which American cotton is sold in world markets, because, America is the largest cotton producing country in the world and the price paid for it has a very large international significance. It will thus be noticed that there are two principal factors of predominant importance; viz., (i) India produces only a small fraction of the world production and (ii) has a surplus of cotton to export to the world. This explains the reason why prices of Indian cotton quoted in our markets as well as in those of the world generally move in sympathy with American prices. One can therefore say that for the broad movement, the price of our cotton rises or falls with that of the American.

¹R. G. Saraiya: Presidential address delivered to the Cotton Association of the Sydenham College of Commerce, 25-2-1940.

For the long term fluctuations, however, the price of Indian cotton is influenced by local conditions, Indian mill consumption, exports, 'domestic consumption' and the exchange rate. So far as the short-term variations are concerned the price of our cotton is affected by market news, operations of the prominent dealers, hedging and badla business, teji-mandi transactions, general economic and commercial conditions in India, political situation and activities in a spot market. Thus, an operator attempting to forecast the price of Indian cotton has to take into account and duly provide for each of these factors, both individually and severally.

How far cotton prices can be forecasted in advance?
 In spite of all these common and special difficulties involved in forecasting the price in advance, attempts to do so are being made daily, regularly and continuously both in our country and abroad by the dealers in cotton futures. Let us therefore inquire, by taking the Bombay market as an illustration, whether cotton prices can be successfully forecasted in advance and if so, how far.

A considerable difference of opinion prevails on the question of price forecasting. The theory is that a composite judgment of traders is superior to individual judgment and this should be reflected in an advance movement of prices.¹ It is impossible to know just what the course of spot prices would have been in the absence of futures markets. It is possible however to gain an insight into the problem of forecasting by comparing prices at different points of time in one and the same market. The most promising approach to the problem is to compare current or spot prices during a delivery period with futures prices for that period as they prevailed at some earlier time. For instance, spot prices during the months of April and May might be compared with the April/May futures prices prevailing either in September and October or in December and January on the theory that September and October or December and January prices of the April/May futures contract, constitute the composite judgment of the market at that time of what spot prices are likely to be in the months of April and May.

¹Report of the Industrial Commission: 1900, Part VI, p.196-213.

Table showing prices* of Broach April/May futures contract as forecasted during the months of Sept.-Oct. and Dec./Jan. and realised during the months of April and May

September	October	December	January	April	May
Wk.	Price	Wk.	Price	Wk.	Price
Rs.	as.	Rs.	as.	Rs.	as.
1930-31					
4	210	12	2	200	4
11	208	4	9	196	8
18	205	12	16	196	0
25	207	12	23	195	8
	30		204	0	
				29	189
				8	30
				30	182
				4	
1931-32					
3	153	4	1	164	12
10	149	0	8	160	12
17	148	4	15	168	12
24	153	8	22	175	12
	29		180	8	30
				197	12
				12	
1932-33					
1	253	8	6	215	8
8	257	0	13	205	12
15	228	0	20	204	8
22	214	0	27	209	4
	29		223	4	
				29	196
					12
1933-34					
7	200	0	5	196	12
14	195	0	12	189	4
21	203	4	19	187	4
28	201	0	26	189	4
	28		201	4	28
				180	8
					25
1934-35					
6	226	0	4	208	12
13	222	8	11	206	8
20	215	0	18	211	8
27	212	0	25	209	8
	27		22	206	8
				27	234
					12
					24
					25
					196
					0
1935-36					
5	191	12	3	208	12
12	199	0	10	217	4
19	199	12	17	215	12
26	206	8	24	215	4
	31		214	8	
				30	201
					12
					30
					200
					4

*Weekly averages as given in Indian Cotton Review.

September	October	December	January	April	May
Wk.	Price	Wk.	Price	Wk.	Price
ending Rs. as.	Rs. as.	ending Rs. as.	Rs. as.	ending Rs. as.	Rs. as.

1936-37

3	210	12	1	218	8	3	218	4	7	227	4	1	245	8	6	227	12
10	216	8	8	219	4	10	219	12	14	230	8	8	248	8	13	230	8
17	220	0	15	218	12	17	223	12	21	227	8	15	244	8	20	230	12
24	217	8	22	222	4	24	223	0	28	225	12	22	237	4	25	235	4
			29	219	0	31	230	0				29	230	8			

1937-38

2	189	0	7	165	0	2	163	8	6	171	8	7	159	12	5	159	4
9	189	4	14	160	4	9	162	0	13	176	8	14	158	8	12	158	4
16	185	8	21	164	12	16	166	8	20	173	12	21	163	8	19	159	4
23	183	4	28	162	4	23	171	0	27	169	12	28	163	8	25	152	8
30	174	4				30	170	0									

1938-39

1	158	4	6	154	8	1	160	0	5	162	12	6	153	0	4	156	8
8	157	0	13	155	8	8	157	0	12	158	12	13	151	4	11	162	0
15	153	4	20	153	8	15	157	8	19	157	4	20	152	8	18	166	8
22	152	4	27	153	12	22	158	0	26	155	8	27	154	0	25	171	0
29	151	8				29	190	4									

1939-40

7	179	0	5	191	0	7	238	0	4	316	8	4	234	8	2	260	8
14	189	12	12	192	0	14	301	0	11	321	4	11	245	0	9	263	12
21	211	12	19	199	12	21	322	4	18	305	4	18	250	4	16	229	8
28	205	0	26	193	4	28	302	0	25	279	8	25	249	0	23	198	8
															25	197	8

The obvious shortcoming of this theory is that conditions change between the time of forecast and that of its fulfilment. A perfect estimate may have been made in the month of June of probable prices of a futures contract in September, but since weather conditions cannot be forecasted beyond the limits of a few days, this forecast must fail if growing conditions change. The point is that the effects of anticipation in September, October, December or January cannot be read in spot prices without allowing for other influences which may have played their part.¹ It is true that futures are traded in 12 months in advance of their maturity. But this does not mean that futures prices fully reflect the prices that will be actually realised when the delivery period comes. The expecta-

¹"The situation is so frequently changed by appearance of new and unpredictable conditions that futures prices only imperfectly forecast the prices that will be charged in the future". C. O. Hardy: Risk and Risk-bearing: 1924, p.217.

tions formed by the professional dealers and the speculators themselves do not take the form of what the price will be at definite future dates. Again, trading interest centres largely in one position or delivery period of a futures contract at any given time. The forces reflecting prices are most likely to be first reflected in it. This becomes the standard to which the level of spot prices and the prices of other positions of the futures contract are adjusted. Further, the outlook and operations of most of the traders do not extend beyond a few weeks. There are still others who are interested in the probable course of prices only during the next day or two. They buy the April/May contract because, in India, it affords the broadest medium of trading on the Bombay market. At the most, their interest is only concerned with prices current during next few days or weeks. Hence the period of forecasting can be expected to extend only to a few weeks or to be more exact to a month or two at the most.

Conclusion: Since the supply and demand factors which determine the level of cotton prices change from month to month it is impossible for any person to interpret and express all the factors entering into the forecasting of prices. The market is too big to be judged on the basis of the facts which come to the attention of any dealer in the course of his daily routine. No individual, however, keen in his foresight can claim that he can successfully foretell the coming changes in cotton prices for a number of months in advance, for, there are larger unknowns or gaps which cannot be foreseen or filled up even by the most careful forecaster. This leads us to conclude that cotton prices cannot be forecasted for minor or day-to-day fluctuations and for a duration of time involving several months. All that can be achieved is that the trend of cotton prices can be forecasted for the period immediately ahead. The period immediately ahead is not a fixed length of time but it may cover, at the most, four or six weeks and not more. The probable explanation for this state of affairs lies in the fact that over and above the difficulties involved in arriving at the world's total supply and demand for a given season, general economic and political developments enter the arena of cotton prices so often that it is improbable, if not impossible, to isolate both their relative importance and respective influence.

CHAPTER XII

TEJI-MANDI OR OPTION BUSINESS.

IT has been said that Teji-mandi or Option business has always been a popular medium of speculation on the organised markets particularly in India. It seems that business in Teji-mandi contracts has been done for the last one century. Its origin lies in the transactions of Opium trade in the forties of the 19th century. A tremendous amount of speculation was carried on, on the price that opium would fetch at the Government periodical sales. The business was better known as 'Nazaraña Transactions'. With a view to stopping gambling in these transactions, the Prevention of Gambling Act, XXI of 1848 was passed. However, the business was carried on as usual.

1. TECHNIQUE OF TEJI-MANDI TRANSACTIONS

Meaning of terms 'Teji' and 'Mandi': 'Teji' denotes a rise or an upward trend and 'Mandi' a fall or a downward trend. On a speculative market 'Teji' implies a 'bullish view' and 'Mandi' a 'bearish view'. 'Teji' corresponds with what is known as 'Call' in foreign markets and 'Mandi' with 'put', and 'Teji-mandi', 'Call and put'.

Kinds of Options: Various kinds of options are employed by the trade for the purpose of dealing on a futures market. These options are mainly of two kinds: (a) Single option and (b) double option. Single option refers to either 'Teji' or 'Mandi' while double option to both 'Teji' and 'Mandi'. The business in India is popularly known as the teji-mandi operations, whereas on the foreign exchanges it is called 'option' or 'privilege' transactions. There are two parties to do business in teji-mandi operations. One party buys the right and the other sells it. The former is called a buyer of options and the latter a seller. According to the phraseology of the Indian market, those who sell options are technically known as 'khanaras' and those who buy are called 'Lagadnaras'. Similarly, the sale of options is commonly spoken of as teji-mandi 'Khadhi' and the purchase as teji-mandi 'Lagadi'.

Definition: The definition given by the Wiles Committee may first be considered. "An option may briefly be described as the purchase of a right to buy or sell cotton at some time in the future when a fall or rise in the market price makes it profitable for the buyer of the option to do so. A Teji or call option is an option to buy cotton. A Mandi or put option covers the right to sell cotton. And a Teji-Mandi or Double option gives the buyer the right to buy or sell as the market may suit him."¹ This definition does not cover all the phases of teji-mandi operations, as there is no mention of the price to be paid for obtaining the valuable 'right' to buy or sell. Moreover, it is too general in nature and does not put the time limit recognised by others. Another definition which runs as under is worthy of consideration: "Teji-mandi business means an operation under which one party by paying or agreeing to pay a specific amount of premium to the other party gets the right of declaring upto a certain date his option of purchase or sale according to the teji-mandi applied by him; and during this period the applier can take advantage of fluctuations in the market by open sales or purchases which, of course, will be covered by his teji-mandi business as far as any loss is concerned."² A word or two on this definition should suffice. It will be noticed that the definition is not only enlightening but also brings out the nature, character and peculiarities of options. It goes a long way in explaining certain aspects of these highly technical phrases which the former definition fails to touch. According to this definition, the elements constituting the common conception of the teji-mandi transactions are: (a) A buyer pays or agrees to pay premium (b) to a seller of teji-mandi (c) to secure the right to buy or sell (d) a certain number of bales (e) on or before the stipulated date (f) at the rate applied by him. The latter half of the definition throws light on the two important aspects, viz., (i) the buyer can take advantage of intermediate fluctuations in the price by entering into any number of open transactions and (ii) in so far as any loss is concerned, it is limited to the money paid or payable as consideration.

¹Report of the Cotton Contracts Act Committee, 1930, p.15.

²This definition is supplied by an important concern in Bombay which prefers to be anonymous.

Procedure: Now let us turn for a while to the practical side in order that the technique of the teji-mandi may be thoroughly grasped. The procedure of doing teji-mandi business is that an operator buys teji-option if he expects the market to go up and mandi-option when he thinks that the market will go down. In the circumstances where it is not possible to judge a definite tendency, the operator chooses to purchase the double option which can be exercised any way according to the trend of the market. Thus, if a man looks for a rise but is not sure as well as ready enough to bear the risk of buying outright, he prefers to buy a teji option, and conversely, one who prefers instead of selling short in as much as, he holds a bearish view, resorts to buy a mandi-option. When a man has no clear view of the market and still wants to operate without shouldering any more financial liability than he can afford, he buys the teji-mandi option. Whenever, a man wants to indulge in options all that he has to do is to ask his broker to buy, teji, mandi or teji-mandi options with payment or with agreement to pay in cash at the ruling rate of premium. In any case, it is not obligatory on the part of the buyer either to sign the counter-part of the contract sheet or to enter into any sort of commercial commitment at all, even if his views turn out to be incorrect. But during the currency of the option whenever the price shoots up and becomes favourable, the buyer has a right and can enforce it by asking his broker to close the contract. He can reap the full advantage of his correct forecast by way of earning the whole difference between the price on which he bought the option and the closing price of his operation.¹

The options are also bought and sold at the distant market prices. This is a special form of teji-mandi business known as 'Gulleys'. The peculiarity of 'Gulley' options is that the teji-gulley can be bought on the prices higher than the ruling price of a particular contract and the reverse is the case for the mandi-gulley. Double-gulleys can be bought at so much higher and so much lower than the current market price.

It may be noted that the frequency of the teji option being dealt in is greater than that of the mandi, the probable reason attributed to this is that the majority of traders are

¹In the case of a client, brokerage is deducted.

more inclined to be optimistic rather than pessimistic. As a result, they more often see a coming rise than a likely fall in cotton prices.

Illustrations: To explain the teji-mandi business in detail some concrete examples may be given here.¹ Suppose the current market rate of Broach is Rs. 150/- . If chances appear in favour of an advance an operator may buy teji 100 bales, the premium for which may be, say, Rs. 8/- per candy. This means that he has to pay Rs. 8×50 candy = Rs. 400, per 100 bales. He can sell off at any time against his teji but in order to have a real profit he should sell only after the market advances more than the premium paid because up to the advance of Rs. 8/- he would get back the premium money only. He would get net profit with any further advance in price. If the market is expected to decline the operator may then buy mandi on the same price. The premium for the mandi will also be Rs. 8/- per candy or Rs. 8×50 candy = Rs. 400/- per 100 bales. He has thus to invest Rs. 400/- in either case for doing the option business of 100 bales. When the market declines he can buy at any time against his mandi. Here also he should buy after the market declines sufficiently to recover the premium in order to secure a net profit. If the trend is not ascertainable, the operator may apply double option. Its premium would naturally be double. Suppose the current market price is Rs. 150/- the double option would cost him Rs. 16/- per candy or Rs. 16×50 candy = Rs. 800 for 100 bales. It being teji-mandi the operator can act on any side of the market. But he has to remember that his profit would begin after he is able to recover the double premium that he has invested.

If the operator in the three cases just cited above, does not wish to make any intermediate transactions against his options the probable situations will be as under:

(a) **Teji example:** Suppose the prevailing price touches Rs. 160/- the operator who bought teji on Rs. 150/-, can close his transaction by declaring it a purchase which must, of course, be sold out at the ruling rate, i.e. at Rs. 160. He will get Rs. 10 per candy or Rs. 500/- for the deal. As

¹All these examples are from the buyers' standpoint and drawn from the normal times. A fraction of a rupee is not taken with a view to avoiding detailed calculations.

he has invested Rs. 400/- his net profit will be Rs. 100/-. If he has bought mandi on Rs. 150/- not only will he in this case get nothing but lose the premium money of Rs. 400/-. If he has bought teji-mandi, he will get back Rs. 10/- per candy or Rs. 500/-. As he has originally invested Rs. 800 in that case, he will on the whole lose Rs. 300/- on a business of 100 bales.

(b) **Mandi example:** Now suppose the market goes down instead of going up and touches Rs. 140. He will declare his mandi as a sale which will bring him a net profit of Rs. 100/-. Teji will put him in the position of a loser of Rs. 400/-. Teji-mandi will result in a net loss of Rs. 300/-.

(c) **Teji-mandi example:** The chance to make money for the operator who has bought double option will only come when the price oscillates so much so that it may go either above Rs. 166/- or below Rs. 134/-. In such cases he will recover all his investment and reap profit, if possible. Suppose the market touches Rs. 170 or Rs. 130, his net profit on either side will amount to Rs. 4/- per candy or Rs. 200/- per 100 bales.

(d) **Gulley example:** Finally, an example of gulley operation may be taken. If the ruling market price is Rs. 150/- the operator can apply teji-gulley or mandi-gulley and teji-mandi-gulley on rates Rs. 10, Rs. 20, Rs. 30, etc., lower or higher than the ruling price. Suppose he buys teji-gulley on Rs. 170/- and pays the premium quoted for it, he can operate against this by selling when the market touches Rs. 170/- or higher, and can cover it afterwards when he gets suitable fluctuations. Similarly, he may buy mandi-gulley at say Rs. 130. He can operate against this by buying when the market touches Rs. 130/- or lower, and can cover the same when he thinks it advisable. In the case of teji-mandi gulley he may make the best of either side. It may happen that the gulley operator would not get a single chance to operate. His loss is, however, limited to the extent of his small investment only.

Interim Operations: In some cases when much advance is not possible it would be advisable to sell against the options even before the whole premium money could be recovered. By so doing an operator would get the benefit of the decline or rise in prices and thereby cover the pre-

mium. Such operations should be covered off and on according to the market tendency. When he covers, his option becomes open again. A party can buy or sell in this way as many times as he thinks advantageous against the options. Suppose the market declines to Rs. 140/- and if he does not expect a further decline, he may buy against the options although his full premium may not have been recovered. If instead of declining the market begins to advance, he may decide to sell if he thinks that the market has sufficiently advanced. By these operations of sales and purchases against his options he can get back the whole amount of the premium and sometimes may be able to secure a decent profit provided the market fluctuates and does not remain stationary. Thus, a clever trader can if he makes the use of opportunities enter into a number of operations under the protection of options.

Apart from the interim operations, traders may employ what is known as the 'method of conversion'. Under this method, he would sell 50 bales out of 100 at the rate at which he applied teji and keep the remaining 50 bales open for teji. His sale of 50 bales affords him the mandi too. Conversely, he would buy 50 bales and turn the half into teji in the case of mandi business. This kind of business is carried on especially by those who are reluctant to part with the double amount of money demanded by a seller of the double option and still may be desirous of providing against an unforeseen eventuality. At the time of buying of a single option they therefore enter into a converse operation for half the number of bales of the original quantity at the ruling price on which they have applied their single option, and hope to get the same sort of protection which the double option offers, of course, at half the premium. These people can also do a lot of jobbing business on their options and make a profit while the option lasts or they may either sell outright or buy against options if they so choose. But it imposes a limitation on his total turnover and he has to be content with half the business of the original lot entered into.

Premium: In securing the right or option a buyer has to pay to a seller certain considerations generally called teji-mandi premium. The determination of the premium

is exclusively within the power of a seller and a buyer has but to pay the amount so fixed.¹ The seller takes all the risk for so small a consideration that it would not be fair for the buyer to get his say in this matter. In fact, no buyer has ever tried to dispute the seller's right of determining the premium money. Moreover, the competition among the sellers is so keen that quotations are found most reasonable to secure a larger amount of business.² These quotations vary from time to time in order to keep pace with market fluctuations. The premium for a teji option is always identical with that of a mandi for the same interval of time. A question arises whether in a rising market the amount asked for the teji is in any way more than that for the mandi and vice versa. But such a discrepancy has no room to arise, for, the rule of quoting the premium is that the teji at any moment costs the same as the mandi and half as much as the teji-mandi. In practice, however, a sum of annas four is charged more for a single option and is known as the jobber's turn. Apart from it, the rule must be qualified by the fact that under exceptional circumstances, it may not be possible for sellers to maintain always the same relationship between the premium quotations for teji or mandi and teji-mandi.

The premium rates for the gulleys are comparatively much lower than those quoted for the ordinary teji-mandi options. This rate goes on declining with the increase in the distance of prices from that prevailing in the open market. The buyer of gulley has to pay a smaller amount

¹Interest is to be deducted at the rate of 4½%.

²Quotation Table*

Broach April/May at Rs. 153-12.

		Annual	Monthly
		Rs.	Rs.
Teji-mandi		13-8	2-12
Teji		7-0	1-6-6
Mandi		6-12	1-6-6
	Teji-Mandi		Teji at
Annual	10%	3-10	Rs. 165 3-8
	15%	2-12	Rs. 170 2-10
	20%	2-0	Rs. 175 1-14
	25%	1-8	
Monthly	3%	0-9	
	5%	0-4	

*Supplied by J. D. Thacker, 9-8-1939.

of consideration, because, the risk of the seller who may be called upon to fulfil the contract is much less in the first instance and still less in the second. The whole sum received as the premium on gulleys is practically swallowed away by the sellers in normal times.

As to the factors taken into account by sellers in fixing the premium money to be charged, it may be said that there is no particular system or an actuarial basis on which sellers can safely rely. They are guided in their dealings chiefly by the 'speculative impulse' and sometimes by a 'guess'. The speculative impulse is in turn influenced by two principal factors; viz., (i) Duration of the teji or mandi and the teji-mandi and (ii) fluctuations in the market. The duration of options depends upon the length of time during which they are to run. The longer the period, the higher is the premium rate and vice versa. With regard to the second factor, the range of fluctuations has an intimate relation with the premium amount. The risk of sellers varies directly with the probable chances of price stability for a certain period. The more unstable the market fluctuations become the greater is the risk to sellers and consequently, the higher will be the premium quotations and vice versa.

Long and Short Range Options: There are daily, weekly, fortnightly, monthly and annual teji, mandi and teji-mandi options. These options may conveniently be divided as (i) long-range options and (ii) short-range options. Except the annual options which come under the long-range, all others fall in the latter group. The long-range option is the most popular form of teji-mandi business in India. It opens with the new year's crop and the 25th of March is regarded as the date of maturity for the April/May Broach contract. Similarly, another annual option can be availed of when the July/August Broach contract opens. The maturity date of this option is fixed as the 25th of June every year. Under the short-range option the monthly period is most popular. The trading commences on the 16th of every month and the date of settlement is the 21st of the ensuing month. Until the 21st March the monthly business is carried on in the Broach April/May contract and later up to the 21st June, it is carried on in the Broach July/Aug. contract. Daily option

business is done in Karachi, while weekly and fortnightly is carried on in Bombay, Surat and Ahmedabad. Generally, option transactions are so arranged that they mature on or about the day preceding the maturity date of particular contract. This seems to be in conjunction with the rules and regulations governing the futures contracts.

Declaration Day: Whether an operator enters into any kind of operations against his options or not, he has to settle the business finally on the due date when the option expires. This last date is the day on which options are to be declared and is called the 'declaration day'. After that date the business becomes open. The nature of the option business requires that an operator should exercise his right by declaring or electing either to be a buyer or a seller on the due date. It is said that in a majority of cases the option declares its own position. This is alright in cases where the market prices are higher or lower on the declaration day than the prices on which the option was bought. The seller asserts his position by a common practice that a certain option would be declared as a purchase or a sale. This practice of taking things for granted is at times liable to cause misunderstanding. It is therefore advisable to be on the safe side and formally declare one's own intention with a view to avoiding possible misgivings. Further, there are circumstances under which it is difficult to clearly differentiate between the closing price and the price on which the option was applied. In such cases, option may not and probably cannot speak definitely for itself. There is one technical term used in cognition of this state of affairs, known as teji-mandi 'Dubgai' i.e. option lapsed. As a matter of fact, a majority of the traders are satisfied with this sort of automatic settlement, thereby foregoing their most important privilege of making a formal declaration of their intentions. It is necessary therefore to emphasise that under any circumstances, the formal declaration of one's intention to become either a buyer or a seller on the due date must officially be made. Obviously, this will make the position of a buyer and a seller quite clear and most businesslike.

Nature of Teji-Mandi Transactions: Teji-mandi operations are no doubt regarded as commercial transactions, but they are not the contracts of the usual type that one

generally comes across on an organised commodity market. Their peculiar nature lies in the fact that they do not constitute outright sales or purchases of cotton between the parties at the time the contracts are first entered into. Instead they give rise to the 'right' to sell or buy cotton on a stipulated future date. The party in question is at full liberty to buy from or sell to the other party without any compulsion. This is true so far as a buyer of options is concerned but the position of the seller is just the reverse. Stated otherwise, the teji-mandi contracts are unilateral and not reciprocal. The unrestricted choice of the buyer is a feature of these contracts. It is this freedom of choice given to the buyer that makes the business more attractive to a dealer. If the freedom or the right of becoming a buyer or seller is taken away, the transaction will become nothing short of ordinary futures contracts.

Further, the most important point is whether to exercise the right or not. This may be regarded as an arch-point in options. The moment a party exercises the right, his transaction is no more regarded as a teji-mandi transaction. It becomes an open futures contract subject to the rules and regulations of an exchange. When the right is exercised a mandi turns into a sale and a teji into a purchase. For instance, suppose A bought 100 bales as teji on 1st December at Rs. 175/- and he exercised his right of becoming a buyer on 20th December, say, at the then ruling price of Rs. 190/-. Now this becomes an open futures contract between the seller to sell and A to buy 100 bales which he may sell off and pocket the gain immediately or afterwards. The reverse will be the case in the case of mandi. Taking the case of teji-mandi, suppose A bought teji-mandi of 100 bales at Rs. 175/- on 1st December and exercised the right on 20th December when the price was ruling, say, at Rs. 190/-. Now his mandi is lost but teji gives him a right of becoming a buyer and the transaction becomes an ordinary futures contract. In such a contract, cotton is deliverable at the instance of a party concerned. Otherwise, a party in question may bring about a settlement by the usual method of 'offset' and exchange the difference, if any. In this way, the resulting contract becomes a futures contract on the due date of the teji-mandi transaction.

Options Compared with Futures: Option transactions may now be compared with futures operations with a view to note the points of difference between the two. Those who are on a futures market and make use of options say that they employ teji-mandi because it is a speculative transaction within limits, and therefore, a better contract than an outright speculative dealing in futures. Of the two contracts, options are regarded as less speculative than futures. A dealer in options may incur a loss to the extent of the premium money involved whereas in the case of open sale or purchase it is hardly possible to operate with a limited amount. The risk in a futures contract is in the first place an unknown element, and secondly, it cannot safely be limited to one's financial capacity. In the teji-mandi business, the element of risk is pre-determined and therefore it can be measured in advance. Since risk can be decided at the time of buying teji-mandi, a dealer can limit it to the extent of his financial capacity and willingness to part with his money.

2. INFLUENCE OF TEJI-MANDI BUSINESS

It has been claimed that teji-mandi business was devised by human ingenuity to minimise risk. Another reason as to why these transactions are so widely indulged in seems to be the fact that they afford a very useful mode of speculating on the commodity exchange. Traders in almost all commodity exchanges in India indulge in these transactions and cotton markets top the list, both in the volume and the amount staked. Its cheap popularity lies in its utility to the various trade interests.

Functions of Options: The first and foremost function of option is to act as a sort of insurance against the probable rise or fall in prices. Option is employed to bridge the gap between the prevailing price and the probable future price. Teji-mandi is availed of to ease off the difference between a day's, week's, fortnight's, month's, or year's trading operations. The important economic significance of teji-mandi business lies in the fact that the option transactions are useful to the trade particularly from the viewpoint of a buyer of options.

Economic Utility of Options: Options can be put to a legitimate use by all sorts of operators on a futures market. The dealer who buys a mandi option insures against

the market falling, but stands to gain if it rises. In the case of a teji option, the insurance is against the market rising but if the market declines he stands to gain. Similarly, in the case of teji-mandi a dealer insures against both the market falling or rising. It has the protective value to merchants, traders, manufacturers, agriculturists, factory-owners and speculators. For instance, a ready cotton merchant long of actual cotton, if he buys a mandi and waits till the market moves up to a certain extent, he might make a good profit on a comparatively small amount of premium. If the market declines he has got mandi's full protection. Again, a trader having some definite prognostications for a big rise or fall in prices can, by applying the gulley option up or down for a paltry amount, reap the whole benefit without any undue risk if his forecast materialises. Similarly, a manufacturer of yarn or cloth on application of option can limit his risk on the stocks on hand, and at the same time it gives him freedom to make profits on his stocks if the market advances during the period. A factory-owner can also avail himself of this business. Some people at times avoid hedging and for them option is useful. Finally, a long or short position in foreign markets can be insured by the corresponding application of options in domestic exchanges.

Merits and Demerits of Options: Option-dealing offers a fairly large number of advantages in general, and over the outright purchases or sales in particular. The general advantages are: (a) Unlike any form of known insurance, in teji-mandi business one gets a chance of reaping unlimited profit if the expectations materialise, e.g. some unknown development might take place on account of the occurrence of some eventuality and a trader may be placed in a position to realise the whole amount of profit. (b) This business can be effected at a small amount of premium. Advocates of option-dealings maintain that even if your forecasts are not realised or you are not presented with any opportunity which would enable you to make money, you have not to worry at all, since, all you will lose is the premium paid and nothing more than that. Moreover, a man with a limited means can do a fairly large amount of business with the risk of a limited loss. (c) Option offers an opportunity of jobbing. A shrewd operator frequently

makes use of his option to carry out the interim transactions between the day of purchase and that of the **expiration** of options, especially when there are such opportunities, both in the case of violent fluctuations as well as in the state of comparative stagnation. (d) Sometimes it saves the market from declining further. The business has been a source of support in the process of keeping up prices.¹ (e) It widens the field of demand by bringing more people to trade. It thus increases the volume of business. The market without options would be narrow. (f) It has the protective utility of safeguarding the trader against wild fluctuations. These transactions have helped but not hindered interests of trade in general.

The special advantages of options over futures are that the risk of the participants in the former case is limited and known in advance while that in the latter is both unlimited and unknown. Within limited investment one gets equal chances of gains by buying options. Options are particularly favoured by two types of traders: (i) persons whose means are limited and still desire to do business and (ii) those who want to do business on limited investment only. Moreover, the option business saves an operator from making arrangements for periodical clearings. This is considered as an advantage over the futures contract in a way, because, if a man is a genuine investor and for the moment is short of funds either to pay the margin money or settlement amount, he is free from such responsibilities under the options. As a result, it is likely that even the genuine investor may be attracted to teji-mandi and it should not be surprising if genuine traders resort to options.

While the advantages are many, teji-mandi business is not free from drawbacks. Opponents of options are loud in their efforts to establish that the business should be treated as unhealthy because it encourages the speculative instinct. These facilities induce the layman to gamble in cotton creating thereby adverse effects on the business community as a whole. It is therefore argued that this sort of business should completely be done away with,

¹"Had it not been for these transactions, prices in all probability would have been still worse". Seth Begraj Gupta: Times of India, 29-9-1934.

particularly for the sake of the middle and poorer classes. It is emphasised by one section of the trade that the futility of options can better be realised from the moral standpoint. The morality of our society deteriorates when it becomes a hobby of all the classes to indulge in teji-mandi business and every recurring loss plays havoc with the buyer.

Focussing our attention to the economic shortcomings of teji-mandi, it is vehemently stated that options do not serve any trade purpose and hence, should not be regarded as a commercial necessity. On the contrary, they create rather an artificial demand and supply of contracts than a bona fide situation in a market. The atmosphere created by options is regarded as economically unhealthy causing at times a violent disturbance in the price structure. Again, loss being limited, teji-mandi allures a layman to take a chance and thereby add to the artificial transactions. This affects the market and keeps the prices unduly high or low for some time, which ultimately becomes a sort of nuisance to the genuine trader. Hence, if they are withdrawn from the market, the trade will be confined to bona fide traders.¹ Further, it is said that when an option-seller has to unload on an unwilling market in competition with actual holdings of cotton, his endeavours keep the prices down and our cotton may be sold cheaper than that of others. Finally, a plea is made by some on the ground that teji-mandi is not a constitutionally recognised form of business in India. Doubts are also expressed regarding its legal status.

Having noted the pros and cons of teji-mandi business, it may be stated here that these operations may be carried out by speculators with a view merely to avoid unlimited losses. To the question whether it serves any trade purpose or not, it may be pointed out that teji-mandi does serve the trade by affording the protective utility to the various interests concerned. In spite of its drawbacks the business of teji-mandi remains popular on account of its advantages of enabling a buyer to carry out his business with small and limited investment and

¹Ref. to the minute of dissent submitted to the Wiles Committee by Sir Ness Wadia: Report of the Cotton Contracts Act Committee: 1930.

at times with the prospect of reaping a large profit. It may therefore be observed that from the standpoint of a buyer the teji-mandi business is both commercially healthy and economically sound. But the question whether it might not bring about economic ruin of small people is a serious point demanding some deliberation from the authorities concerned, particularly from the Government.

Position of Sellers of Options: The business of selling options is regarded as somewhat risky because it is the seller who undertakes liabilities against the possible fluctuations whereas the buyer is comparatively free from commitments. The seller has to sell options on every price available as well as on any level. He protects himself by constant vigilance and if need be by operating at every notable price movement. In order to protect himself he generally operates for half the quantity dealt in. For instance, if he sells teji-mandi for 200 bales he transacts the business for 100 bales with a due consideration to the trend of the market. He has also to go on changing sides. If he has purchased against options sold and the market shows signs of going down he may immediately sell off the whole lot, and if necessary may make further sales in order to safeguard against the mandi sold by him. If he then finds that the market is going up again, he has to cover those sales and buy sufficient quantity to shield himself against the options sold. He has thus to make a large number of transactions before the arrival of the due date. If at all he is able to earn, it is only a small portion of the amount received by way of premium money. However, in years of small fluctuations the sellers are able to save more. In abnormal times when the market is subjected to every kind of influence, financial and political, the fluctuations become so rapid and violent that it is very difficult for them to maintain stability and earn profits.¹ The seller has to worry much about his position in a market.

A few examples from the sellers' side may be given as some of the buyer's actual trading operations have already

¹We know for instance that out of the four parties that failed to meet their liabilities at the outbreak of the European War of Sept. 1939, three were the sellers of teji-mandi in Bombay.

been described. These illustrations will help in making the seller's position clear. Suppose Rs. 160/- is the ruling rate of Broach and a seller sells a double option at Rs. 20/-. So long as the market remains steady he can afford to be indifferent but the moment it passes beyond Rs. 20/- either side, i.e. at Rs. 140/- or Rs. 180/- level he has to operate. Imagine a case where instead of having sold only 100 bales, a seller has sold several thousands of bales, say, 20,000 for a particular contract. By his sales he has got enough money to cover himself so long as the price moves in either direction by Rs. 20/-. The moment the market touches Rs. 140/-, he becomes an actual seller of 10,000 bales. If it touches Rs. 180/- he becomes a buyer. If the market still rises, he becomes an eager buyer. The process is exactly the same when the market goes below Rs. 140/-. He would then become a heavy seller.

In this way, he has to carry out a number of transactions on either side according to the price variations, so that his stability may not be threatened. The wider the fluctuations, the greater is the excitement. It is under such circumstances that the position of a seller of options becomes a real problem to the trade as a whole. The seller then becomes the abnoxious part of the teji-mandi business. Since the buyer knows the extent of his loss, teji-mandi may be useful to him. A difficulty arises over the seller, because, there is no settlement for him until the maturity of options. The buyer can at any moment protect himself, but the man who cannot help himself is the seller. The crux of the whole problem of options is the position of the seller for whom it is very difficult to ascertain his own position till the end of the option period. If he cannot ease his position he might bring about a crisis. Since the outstanding liability of an option seller cannot be determined until maturity, and if he fails in the meantime, the market would violently be upset. The result would be that many would suffer particularly the buyers of options. It is merely the price which is in question. It cuts both ways. It may become prejudicial at any moment to the interests of the consumers or the producers. There can hardly be found any means to protect traders against the operations of sellers. If a seller of option fails there may not be any definite remedy available, because, he might have operated on whatever price levels he liked.

It is therefore imperative that the business should be made with those sellers, who are recognised parties of sound position with large resources at their command. Otherwise, appreciating the difficulties and sympathising with the responsibilities of this sector, at times, buyers of option from a weak seller may have not only to waste the premium money but also to lose the opportunities presented during the currency of options. Unless a seller is an expert operator, there is the probability of his being knocked out. Hence, a majority of dealers in this kind of business would certainly prefer to be the buyers to the sellers of options. Since it requires an expert and an alert mind and sound financial ability, the number of sellers of options is small.

Volume of Business: Generally speaking, the amount of cotton involved in these transactions varies directly with the number of buyers and the quantity purchased and indirectly with the numerical strength of the sellers. In other words, the greater the quantity purchased the greater is the volume of teji-mandi business, other things being equal and vice versa. In 1930, the volume of business was estimated somewhere between 6 to 9 lakhs of bales per year.¹ This favourably compares with the estimates received by us in 1939 that the teji-mandi business in Bombay amounts to 4-5 lakhs of bales on each contract per annum. There being two positions, the total volume might exceed 10 lakhs of bales per year. It is worth while to note in this connection that this is after all a matter of estimation, subject to correction. In the absence of any statistical data, 9-10 lakhs of bales a year might be regarded as a fairly good guess for the probable extent of teji-mandi turnover on a leading market in India.

Effect on the Course of Prices: It is asserted that the teji-mandi operations influence the course of prices on a futures market. The trade opinion, however, is divided on this issue. Some people think that option dealings cause violent fluctuations in prices by reason of their huge turnover of either sales or purchases of futures contracts in a given market. This affects the market which tends to decline or advance more than it ordinarily should. They maintain that to safeguard his own position a seller would

¹Report of the Cotton Contracts Act Committee, 1930, p.15.

generally be forced to operate in such a way as to obstruct the natural phenomenon of prices. His large-scale operations ostensibly make the market fluctuate artificially. The liquidation of open interests on the expiration of an option has frequently a tendency either to unduly depress or raise the prices. This may not happen at all in small business, as it will not have much effect on the market. But, once the operations are in large quantities they are bound to affect the prices.

Another school of thought points out that one fact must not be lost sight of and that is, the buyers of options enter into just the opposite sort of business to that of the sellers. This counteracts the undue bullishness or bearishness caused by the act of sellers. They therefore hold that the operations of buyers and sellers are cancelled in the end and the business registers no appreciable effect on the market. They further point out that ordinary business dealings would soon tend to bring about the needed adjustment if there is any dislocation of prices. If options artificially stimulate prices the trend would automatically be arrested by the fact that operators would sell when the prices are higher and buy where the prices are lower, and in consequence, the price adjustment would easily be brought about. It is therefore put forth that the teji-mandi business exerts no more influence than the ordinary speculative operations do.

However, we disassociate with either view and are convinced by our personal observations that if a very large number of teji-mandi transactions happens to accumulate on any one position of any one contract, the natural sequence is that a seller of options will have to buy in a rising market and sell in a falling one. Stated otherwise, it helps both the bullish and the bearish trend in the market and the general result is to accentuate, at least for the time being, to a certain extent the price fluctuations on either side of the market. Moreover, there can be little doubt as to the fact that the position of the seller of options, as we have examined above, should tend to accentuate price fluctuations in a given market.

3. LEGAL NATURE OF TEJI-MANDI OPERATIONS

The legal intricacies involved in the business require the consideration of the legal status of teji-mandi transactions. It was believed till recently that options are no-

thing short of wagering contracts. This view is now held to be erroneous and option transactions are ordinarily regarded as genuine futures contracts¹

Question of Wagers Examined: Formerly, there was no unanimity of opinion in the judicial decisions on the teji-mandi transactions. One school of thought held that options were 'wagers pure and simple'. On the other hand, some expressed the view that these transactions on maturity result by their very nature into futures contracts and stand on an equal footing in the eyes of law. The elements which distinguish teji-mandi transactions from wagers are: (a) the buyer pays the premium to the seller in consideration of securing a right of declaring a sale or a purchase on a certain day, (b) money paid by the buyer is by way of an insurance premium against the bearish or bullish trend of the market, (c) as in a futures contract a trader gains or loses according to the trend of the market, the option-dealer loses the premium money or gains the whole amount over and above the premium sum, (d) the operator's intention is clear from the fact that options expire a day before the date of maturity of a futures contract, and (e) both futures and options can be 'offset' and delivery may or may not take place in their fulfilment. Speculation in futures cannot necessarily be regarded as wagering. The difference between the two forms of speculation was explained in 1921 by Justice Kincaid. He stated that teji-mandi transactions are "the less speculative of the two."² This was subsequently reaffirmed by the Courts of Appeal and confirmed by the Privy Council in 1926, in Sobhagmal Gianmal vs. Hukumchand Birla.³

The legal aspect of options is that teji-mandi business is not necessarily illegal. It was looked upon more as a wagering contract because there was some legal doubt as to whether delivery is contemplated or not. The sole point at issue is whether the option has cotton behind it or whether no delivery is contemplated. In the latter case the business is illegal under the gambling law. If there is

¹R. R. Mody: The Law of Pakki-Katchi Adat and Teji-Mandi Contracts 1937, preface.

²Kincaid, J. in Manubhai vs. Keshavji (1921) 24 Bom. L.R.60, 68.

³R. R. Mody, p.171.

cotton behind the option and the delivery is contemplated, it is a legal contract.¹ In fact, in all contracts of teji-mandi, delivery is contemplated as soon as one elects to become a buyer or a seller. It is therefore nothing short of a legal contract.

Legal Opinions: The E.I.C.A. and the Cotton Brokers' Association have since long secured some legal advice from their respective counsels on the option business. These opinions are given below:

(a) **Advocate General:** "The purchase of the option is not a transaction in cotton. The resulting transaction is; therefore, the original purchase would not be subject to the bye-laws of the E.I.C.A., but the resulting contract would come under section 2 of the Cotton Contracts Act."

(b) **Bhulabhai Desai:** "These transactions ought to be brought under the purview of the Association's rules. That is the legal aspect of the question."

(c) **Sir J. B. Kanga:** "I cannot understand why the E.I.C.A. should not make rules governing teji-mandi contracts. The contracts in the absence of evidence that they are wagers, should be treated as genuine contracts."

A Recent Case of Teji-Mandi: In order to complete our legal survey it will be appropriate here to cite the recent case of Nathalal Bechardas vs. Amrithlal and others.² This was a suit filed by the plaintiffs to recover a sum of Rs. 5,891. The plaintiffs had paid premia for options to the defendants who denied their liability on the ground that the option transactions were not in accordance with the bye-laws of any recognised cotton association and were therefore altogether void. In delivering his judgment Justice Kania said that the "word contract as defined in section 3, sub-clause (e) of the Bombay Cotton Contracts Act IV of 1932 included options and that Section 8 thereof was applicable to option transactions also." The fact was admitted that there was no provision in the bye-laws

¹"If the teji-mandi is based on a cotton contract, I presume with the dictum of counsel that it must be taken to be a genuine contract." Sir Gilbert Wiles: Bombay Legislative Council Debates: Vol. 31, 1931: pp.693-94.

²Suit No.936 of 1935 unreported judgment dated 16th July 1936, given in Mody's book, pp.243-44.

framed by the E.I.C.A. in respect of options. In his Lordship's opinion the defendants' contention was incorrect. If the bye-laws were silent on a particular point, the defendants would be unable to establish what contracts would be in accordance with the bye-laws of a recognised association. In consequence, the transactions were held as valid and a decree was passed in favour of the plaintiffs.

4. POSITION OF OPTIONS ABROAD

Let us now take a bird's eye view of the position of option business in the important overseas futures markets.

England: Whilst options are not officially recognised in Liverpool, they are not tabooed. The association has not made them illegal. There is no definite rule barring members from dealing in options. The association recognises the use of a clearing house in order to validate this form of trading and prohibits the credit terms. The business period is restricted to one day before the delivery on a futures contract. The option business is being done on the official Liverpool contract form. If a man in Liverpool buys an option of 100 bales at the prevailing price, the amount paid for the option is written in red ink for a cash consideration of so many pounds, say, £50 per contract. An actual contract between a buyer and a seller of option is passed through the clearing house. First of all, the option is not recognised although it is recorded. The moment, the premium rate is reached, the transaction becomes an ordinary contract. The clearing house will take cognisance of the price which is stated on the form and the option becomes a matter of private business subject to the adjustment between the parties concerned. It becomes an alive contract as soon as the price goes above or below the premium paid on the basis. Therefore the contract in the case of a single option is either alive or dead according to the price level, but in the case of a double option it is alive on both sides. The position of options in Liverpool appears to be this that the association officially does not recognise them in any form whatsoever, but when converted into futures contracts they are duly recognised by the authorities.

Egypt: Apart from ordinary futures contracts there are option transactions regularly dealt in on the Alexandria

exchange.¹ Options in Egypt are known as 'Stellage' operations.

Prevalence of Options on Other Exchanges: Option dealings are practised on other organised markets of the world including stock and security exchanges. For instance, options are known as 'privileges' in Canada and 'Puts and Calls' in London. The privileges though in vogue were not formally recognised by the Winnipeg Grain Exchange. In recent years, the exchange has organised a regular market for their purchase and sale.² When they were not officially recognised operators used to deal in them before, during or after trading hours. Since their formal recognition, members are forbidden to deal in privileges at any other time than during the trading hours. Apart from commodity markets, options are effected in bullion exchanges, especially in India. The business is also prevalent on the Stock and Security exchanges of Europe, particularly in London, Paris and Berlin markets. It will thus be observed that the option business has been a part and parcel of the world organised markets in general and of the cotton futures markets in particular.

5. ANOMALOUS POSITION OF OPTIONS IN INDIA

Present Position in Bombay: The present position of options on the Bombay market is that teji-mandi business is neither officially recognised nor is there any rule prohibiting it. In fact, the present position of option transactions is really anomalous. There are two systems in vogue at present. One is the cash system and the other is known as the credit system. Generally, the premium for long-range option is payable while buying, but credit is allowed, sometimes, in certain circumstances. On the other hand, credit is commonly given in the case of short-range option and premium money is payable at the end of the period. The business, as in Liverpool, passes through the clearing house. In view of this situation, one serious difficulty arises over arbitration. Business in futures and options is carried on side by side and this makes it

¹Economou G. D. & Co. Some information about the Egyptian Cotton market, futures and spot, 1926, p.16.

²Report of the Stamp Commission, 1931, p.32.

interconnected. A good deal of inconvenience is felt by traders while referring the matter to arbitration. In consequence, for a single sum due, it happens that a trader has to refer for a part of the amount to arbitration rules of the association, and for another part he has to submit to the decision of the court, on account of the fact that there are no rules providing for options in the bye-laws of the association. Generally, it is difficult to separate the amount due in most of the cases and much trouble arises out of this. Many a time, it happens that the operator might have his position squared in a general way. Now, as teji-mandi is not subject to the arbitration of the association, his position might remain unclosed and no award can be obtained under these circumstances. This anomalous position of options often does injustice to the trade. If we stress this point further, its logical conclusion will be a timely demand for making rules and regulations governing teji-mandi business and a formal recognition of options.

Need for Regulation: It is relevant to inquire before endorsing the above conclusion whether teji-mandi business can be eradicated or suppressed. With regard to its eradication, it should be pointed out that there is not a single special reason as to why options should be done away with. As far as the issue of suppressing the business is concerned, it may safely be stated that it is difficult if not impossible, to suppress option dealings. It may, however, be observed that if a man overtrades in options, you cannot get rid of him and his liabilities. The market moves from the centre point, whatever it may be and you have got no cover against it. It is therefore imperative that teji-mandi business should be regulated as far as possible by bringing it under the bye-laws of the association.

Dangers of Recognition: A point now may be raised whether there is a need of recognising the options with a view to avoid its present anomalous position in India. It may be admitted that the business cannot completely be suppressed but by bringing it under the rules it can be controlled. Some people express their apprehensions that regulation of options may hand over the trade to a few operators who may not really be interested in the intrinsic value of the commodity but whose main concern may be

the price difference only. The tendency will then be to pass the control of the trade from the general body into the hands of option sellers. The period for which the option dealers will be able to control the market depends upon two factors: (a) What is their interest? and (b) How far the market can respond? Doubts may also be expressed whether the official recognition by way of formal regulation would not make inroads on hedging. It is possible that a man instead of making use of hedging facilities offered to him by the futures market against his spot transactions may employ options for the same purpose by paying the required premium money. A real danger lies in the probable development of a situation that it might not then be necessary for the trader to make use of his knowledge of cotton but to rely only upon the options for his profits against the movements of the market. Should such a development take place the hedge market would be restricted in its utility to that extent.

Competency of a Recognised Association to frame bye-laws: While one cannot forbid option transactions on the ground that they are void, they are defined as contracts within the meaning of the Cotton Contracts Act.¹ Thus, the Law approves but the authorities concerned do not sanction the teji-mandi business. In fact, if futures contracts are permitted there cannot be any objection against option which is also a contract for the purchase or sale of a right exercisable in future.² Competency to frame bye-laws relating to options can ostensibly be derived from the Act under which the E.I.C.A. works at present. Accordingly, they framed the rules and regulations governing the teji-mandi transactions and submitted them to the Government of Bombay in 1935 for their final approval before they could become the bye-laws of the association. But the Government's decision thereon is still being awaited.

¹Bombay Act No. IV of 1932, Section 3, sub-section (e) "A contract means the sale or purchase of cotton and includes options in cotton."

²Ibid: Section 3, sub-section (h) "Option in cotton means a contract made or to be performed in whole or in part in Bombay for the purchase or sale of a right to sell or a right to buy or sell cotton in future and includes, a teji, a mandi, or a teji-mandi in cotton."

6. REMEDIES

Two Alternatives: There seems to be only two alternatives to improve upon the present position of options, viz., (a) formal recognition or (b) complete ban. Whilst the first proposition will clarify the present situation and add to the strength of their official status, the second will go a long way in reducing the cause of confusion. It may, however, be stated that neither of these alternatives will meet the objections raised nor will they remove the inherent weakness of options.

Suggestions: We would therefore suggest that the transactions in teji-mandi be recognised officially. But, in view of the information received by us, it may be said that the recognition should be qualified. Rules may be made to ascertain whether an option is backed by a futures contract or not. In order to restrict a seller's dealings rules may also be framed prescribing the maximum limit of amount and quantity beyond which he cannot sell options on a particular position of a particular contract.

CHAPTER XIII

REGULATION OF FUTURES TRADING AND MARKETS

DURING the world war of 1914-18, prices of cotton in India were regulated under an emergency measure and the problem of permanent legislation was held in abeyance for a time. In recent years, legislative activity has been concerned with regulation and control of futures trading and markets so that practices detrimental to the trade may be eliminated. In fact, futures contracts made in an ordinary way upon an organised market or exchange are legalised, while prohibiting those created purely to trade in price differences. The law rests content with the intention to fulfil contracts by actual delivery. It should, however, be said that legal regulations have been enacted frequently by the failure of exchanges to correct conditions which lay within their power to remedy.

The question of regulating the cotton futures trading and markets in India is a matter of acute controversy. Since the Government of India constituted the Cotton Contracts Committee in 1918, under the Defence of India Act, to the present day, it has been a matter of keen discussion both in and out of the legislature and the exchanges. So far as the Bombay market is concerned, this problem is of fundamental importance. It will therefore be our main concern in this chapter to deal with the problem of regulation in the light of the prevailing system in other countries.

1. THE CASE FOR REGULATION

Reasons why Regulation is Necessary: It is said that trading in futures upon an organised market is conceived to distribute in an orderly way cotton from the field to the factory. From an individual point of view the production and distribution of commodities are carried on with a view to their exchange. The tests of perfection of an organisation of trade are the promptness with which such transfer is effected and the accuracy with which it is carried out. It is by a due appreciation of these facts that one comes to

realise the importance of futures trading and markets. The machinery of cotton marketing in use today is regarded as most extensive and complex, in as much as, orders come from many sources and operators are scattered all the world over. In fact, the entire cotton trade of the world centres around the futures markets.

In the absence of a futures market an exporter will not be able to sell ahead to the consumer in Europe and the Far East. A dealer will not be able to sell any forward delivery cotton. A financier will not consider it safe to advance loans to a cotton dealer without a heavy margin. With a reduced buying power on account of credit restrictions and by the disappearance of price protection those engaged in the marketing process will be forced to operate on wider margins; paying less to the producers and charging more to the consumers. It may further be pointed out that those commodities which lack the assistance of a futures market suffer from many disadvantages. For example, the margin between the cost of such raw commodity, and the sale price of the finished article tends to be greater. It seems therefore, that all intermediate links take less out of the product when there is in the centre a properly organised futures market to act as shock-absorber. Because a futures market provides a prompt buyer to a seller and vice versa at a reasonable price under normal circumstances, it is of great importance to the growers, factory-owners, middlemen, merchants, exporters, importers and manufacturers. A futures market, under the present system of marketing an agricultural produce like cotton is therefore a sheer necessity for its orderly marketing in the world.¹

However important an economic organisation like a commodity futures market may be, its shortcomings should never be lost sight of, for the reason that after all, it is also a human institution and as such is subject to man-made factors. A futures market is susceptible to many activities, such as, squeezes, corners, manipulation, bear-raids, bull-raids, etc. Though without a futures market, cotton trade cannot now be thought of, these elements demand due consideration. The point is that dealings made on a futures market are liable to be abused by unscrupulous men. It is likely that to make money people go to any length as in

¹Replies to the Questionnaire issued by us.

all other trades and professions in the world. It should be admitted that these activities are certainly undesirable elements in any well organised system of marketing, since, they tend to exaggerate the price movements and in turn affect the agriculturists, merchants and manufacturers. They tend to produce adverse effects on the trade and industry. In short, at times, these elements make the market unhealthy by becoming the cause of violent price fluctuations and by rendering the futures contract of little use both as a medium of hedging and as an indicator of the price-level. Hence, such activities should be controlled and properly regulated.

The Scope of Regulation: It is gratifying to note in this connection that the modern tendency is to restrict the undesirable activities by strict supervision on the part of exchange authorities.¹ As a matter of fact the exchange authorities particularly in India have not the power to control and regulate the futures trading and markets. Reasons for this are not far to seek. There is no comprehensive piece of legislation empowering the Indian exchanges to enforce strict rules and regulations on the trade. In order to control undesirable speculative activities on a futures market it is imperative that there should be a restrictive measure of legislation. It may be suggested that harmful activities on a futures market can be brought under control by enforcing unity of control in the trade, limiting hours of business, and restricting certain other matters, such as price fluctuations for a given day, limiting trading position of an individual, etc. This has been accomplished, as we shall see in the following section, by most of the foreign leading markets and the exchange authorities have taken steps to improve the character of trading. But in India much remains to be desired and achieved in this direction. With a view to check the excessive speculation it is necessary that the new Act should empower the exchange authorities in India for adopting the following measures:

- (i) The limitation of the price fluctuations.
- (ii) The limitation on the trading of individuals to the extent of net long or short position of 50,000/60,000 bales from the last clearing; this should not apply to hedge sales or purchases.

¹Ref. to chapter on 'Speculation'.

(iii) The publication of such figures as to enlighten the public at large in matters of volume of transactions and other useful as well as relevant information at least once a week.

2. REGULATION IN OTHER COUNTRIES

In most of the leading countries, organised produce markets have to fulfil rigid rules and regulations prescribed by the State. Some of these countries, viz., the U.S.A., Germany and Japan may be taken for our purpose.

U.S.A.: The U.S.A. claim and rightly possess the largest and most efficiently organised commodity markets in the world. For more than 50 years there has been in progress a gradual but steadily increasing extension in the types of Federal Legislation affecting and in greater or less degree governing the conduct of business. The most conspicuous illustration of this is the U.S. Cotton Futures Act. The gist of the Act is this: It imposed generally on all contracts for future delivery made on any organised market a tax of 2 cents per each lb. of cotton involved. It then exempted from the tax, contracts that complied with its conditions which aimed at correcting the evils¹ of futures trading. Lastly, it provided machinery for carrying the scheme into effect. When the statute had been obeyed in this regard, the contract was freed from taxation.²

The Act gave vast powers to the Secretary of Agriculture in almost all matters connected with the dealings in cotton futures. For instance, he was authorised to prescribe regulations for carrying out the purposes of the Act, to designate spot markets, standards, grades, etc. This intervention of Government agency was welcomed by the trade in general. However, it did not satisfy those who desired a comprehensive type of measure, because, it did not aim at broadly regulating or supervising the trading practice of members. Hence, after sometime, a bill suggesting

¹The abuses on exchanges arose from five conditions: (i) multiplicity of standards, (ii) a system of fixed differences, (iii) delivery of low grade cotton, (iv) the failure of tenders, and (v) the 'performa' delivery practice: Service and Regulatory Announcements, No. 5, U.S. Dept. of Agriculture, 1915.

²The exemption conditions are contained in Sections 5 & 10 and contracts made in compliance therewith are called S.5 or 'basis contracts' and S.10 or 'specific contracts.'

drastic measures was introduced in the Congress in April 1930.¹ The bill was opposed by the Federal Farm Board who approved of the regulatory legislation but expressed that the present measure would suppress futures trading in cotton and grain.² It was suggested by the Board that improvements in the present system would be accomplished if the exchanges were placed under proper supervision and control of the U.S. Dept. of Agriculture.

In the light of this suggestion the Commodity Exchange Act was passed in 1936 bringing under the State supervision transactions for future delivery in cotton, wheat, etc. The new Act is a supplement to the Cotton Futures Act, 1916 and Grain Futures Act, 1922.

The principal important conditions of the Act are:³

1. Markets which wish to conduct transactions for futures delivery must be so designated by the Secretary of Agriculture. It is unlawful for transactions to be made for future delivery except through a regularly designated market.
2. Records of all transactions must be kept for a period of at least three years giving all terms of the transactions.
3. The designated market must allow the Secretary inspection of all its records or minutes of official bodies or committees of the market.
4. The Commodity Exchange Commission may fix limitations both on the amount of speculative trading that any person may do in one day and also upon the speculative net position, long or short, that may be had by any one person, at any one time.⁴ The Commission is

¹Senate Bill No.4129 entitled "To prevent the sale of cotton and grain on futures markets."

²"We are fearful that so drastic a change would completely upset the marketing machinery although we realise the need for improvement." Correspondence between the Senate Committee and the F.F. Board, April 1930. As reproduced in the Report of the Special Committee of the Chamber of Commerce of the U.S.A. 1930. p.39.

³Commodity Year 1939 Book, U.S.A., p.79.

⁴It is important to note that the trading limitations do not apply to bona fide hedging transactions nor to the trading of futures commission merchants and floor brokers unless such trading is for their own account.

given wide discretion in fixing trade limits. It may also fix different trading limits for 'spread' and 'straddle' operations.

5. Commission merchants trading in regulated commodities must be registered, the annual cost of which is 10 dollars. The registration must be accompanied by financial statements which are carefully scrutinised by the Commission. Registrations expire on December 31st of each year. Thus a new registration and new report are required each year.

It will be observed that under this Act the Commission is placed in a position to obtain a great amount of information which was not obtainable under the previous laws.

Germany: In Germany, the principal exchanges and the majority of the small ones are modelled on the pattern of the Berlin Exchange the organisation of which was prescribed by a Government decree in 1886. It was provided that the establishment of an exchange must be approved by the State. The governing body of the Berlin Exchange is appointed by the corporate body of the merchants of the city and has disciplinary powers for the conduct of the exchange.¹ The State exercises supervision over exchanges, particularly in matters of clearing associations. Commissioners are appointed as state officials charged with supervising the business conduct of the exchange and the observance of the promulgated laws and administrative measures. They may also supervise directly the fixing of price quotations on the part of professional quotation brokers. Trading permits are necessary for all German exchanges.

Japan: The Act of 1893 was passed to recognise the exchanges in Japan. At the time of this legislation, exchanges were only seven.² In 1897, the number was reduced from seven to five and by 1916, the exchanges became extinct. Hence, in 1922, the Act was passed which brought five new exchanges into existence.³ The spirit of

¹Commodity Exchanges in Germany: Hans Hirrchein: Annals of The American Academy of Political and Social Science: 1931 May, Vol. No.155, p.208.

²Commodity Exchange in Japan: Zensuku Sano S.D., Ibid, p.225.

³The Exchange Act of 1922, Ibid, p.226.

the law now in force ordains that the association will not be granted permission for the establishment of exchanges unless it is centrally or mutually organised. Another important provision is that there shall be no more than one exchange in a given district in respect of a given object of transaction.

3. HISTORY OF REGULATION IN INDIA.

During the first two decades of the 20th century, several bodies cropped up for the protection of the various small branches of the trade.¹ In any change in rules and regulations or the various customs of the trade in Bombay, these bodies had a say. Until almost the end of the year 1917 the position was more or less intolerable and nothing, but legislation could mend it. In June 1918, under the Defence of India Act, the Cotton Contracts Control Committee, under the chairmanship of Mr. (now Sir) G. Wiles, was appointed by Government to control the trade in Bombay. The Committee succeeded in making the best of the situation then existing.

Act of 1919: As the Committee was constituted as a temporary measure, in November 1918, a bill providing for the control of dealings in cotton by the Bombay Cotton Contracts Board was introduced in the Legislative Council by the Government of Bombay. It followed the rules previously laid down in connection with forward contracts. On moving its first reading, the Hon'ble Mr. G. Carmichael observed that, "though the Bombay Cotton Market handles as much cotton as any other in the world, it has long been recognised that the regulations under which its operations were carried on were seriously defective and conditions were constantly recurring which reacted unfavourably on the genuine trade in cotton and on business generally in Bombay. Various suggestions for reform have been made from time to time but the primary step to be taken, namely, the constitution of one central body of control, always

¹"There are at present in Bombay seven distinct bodies representing different branches of the cotton trade. They are: (1) The Bombay Cotton Trade Association, (2) The Bombay Cotton Exchange, (3) The Bombay Millowners' Association, (4) The Cotton Brokers' Association, (5) The Marwari Chamber of Commerce, (6) The Cotton Merchants' and Muccadums' Association, and (7) The Japanese Cotton Spinners' Association." Report of the Indian Cotton Committee, 1919, p.205.

proved insuperable."¹ The real trouble always thus centered around the setting up of a central authority to control the trade. Hence, this bill may be said to be the first genuine effort of Government regarding the unification of the Indian Cotton Trade.² The Council accepted, as did the trade, the main principle of the bill that there should be a central controlling body to regulate the trade in cotton. The bill came into force as the Bombay Cotton Contracts Control (war Provision) Act, 1919.

The Act being a war measure its repeal was moved in 1921 and passed in 1922. Accordingly, the Cotton Contracts Board was to cease functioning from 1st June 1922. The Board as a central body controlled the trade for more than three years from January 1919 to May 1922.

It was during the regime of this Board that the Mackenna Committee appointed by the Government of India in 1917 made out a case for the establishment of a central cotton Trade Association in Bombay under a Royal Charter similar to the Liverpool Cotton Trade Association.³ The report of the Committee gave an expression to the view that it was a matter of urgent importance that the Bombay Cotton market should be organised on sound and healthy lines. Mr. Mackenna, the president and Mr. (now Sir) N. N. Wadia, a member of the Committee interviewed the trade as to the lines on which reforms should proceed. It was unanimously agreed that immediate action was necessary to create a central controlling body. At the same time, it was duly recognised that the trade itself could not then undertake its formation. The Government of India in turn authorised Mr. Wadia to draw up in consultation with the Directors of the Liverpool Cotton Association, a scheme for the Cotton Association in Bombay.⁴

¹Bombay Legislative Council Debates: 1918, Vol. LVI; p.975.

²Cf. "I have absolutely no hesitation in asserting that the bill is a right step in the right direction for the amelioration of the Cotton Trade, not only of this city, nor of this Presidency only, but of the whole of India." Sir Purshotamdas Thakurdas, *Ibid*, p.798.

³"One central Association to be known as the East India Cotton Association should take place of the seven distinct bodies which at present control the cotton trade in Bombay." Report of the Indian Cotton Committee, 1919, p.210.

⁴Govt. of India Commerce Dept., Communiqué No.6505, 25-9-20 (Better known as Innes' letter).

The main object of the reform was, of course, to control speculation which was looming large during the war time. The authorities admitted that while speculation could not be eliminated altogether, the aim should be so to regulate the market as to secure the interests of bona fide traders and to discourage speculation inimical to those interests. The measures necessary to secure this end involved the problem of regulation of futures trading. Government expressed the view that as in Liverpool and New York, "It is eminently desirable that a central cotton association should be established in Bombay." A confirmed belief both of the State and trade was that it would be necessary to accord the said association, when formed, some measure of statutory recognition. The Government of India in due course invited the Cotton Contracts Board to get into touch with the various sections of the trade with a view to form a single association representing all the interests. They gave an assurance that should such an association be formed, they would introduce legislation giving it the requisite powers of control.¹

Act of 1922: Now the trade began to think of formulating a permanent single commercial association for its regulation. They were successful in forming one central association which was named as suggested by the Mackenna Committee, the "E.I.C.A." This body started its work from May 1922 as a private institution without statutory recognition. It should, however, be mentioned here that the association did not succeed in enlisting the unanimous co-operation of all the sections of the trade. The Mill-owners' Association opposed its constitution and withheld

¹"If it is necessary (as it will probably be) to include in the bill a provision to the effect that no contract for the future delivery of cotton shall be enforceable in any court of law in British India unless drawn up in accordance with the rules framed on this behalf by the proposed Central Association, there is no alternative but to undertake the necessary legislation in the Indian Legislative Council. It is also evident that even though the Association will presumably confine its activities mainly to the Bombay city, its operations will affect the cotton Trade throughout India and for this reason also, the Government of India think legislation must be undertaken in their own Council."

Ibid.

their approval by refusing to join its membership. This interrupted its progress and the organisation began to experience difficulties in its work. In fact, it was impossible for it to carry on without official recognition. A condition precedent to such recognition was that the central body should be representative of all the important sections of the trade. Experience gained during the regime of the Cotton Contracts Board had proved that no voluntary central association would hope to control the trade for any length of time without legislative authority behind it. The Millowners' Association had therefore to be reconciled and their co-operation won by amending the constitution of the E.I.C.A. before asking Government for a Royal Charter.

The association then represented to Government the urgent necessity of passing the Act conferring upon the E.I.C.A., (a) statutory powers to enable them to regulate the trade and (b) sanctioning the administrative machinery contained in the Articles of Association. On 25th July 1922, a bill legalising the establishment of the E.I.C.A. and giving most of the powers exercised by the Cotton Contracts Board was introduced in the Council by Government.¹ This was a natural complement of what the Government undertook in 1919. The Council passed the bill and it came immediately in force as the Bombay Cotton Contracts Act, 1922.²

Growth of a Rival Body to the E.I.C.A.: For the first three years, the E.I.C.A. had to face some opposition particularly from small traders. But no one tried to oppose the association thinking that the Act of 1922 would be repealed on its expiration. Contrary to this expectation, the life of the Act was extended by Government for a term of three years. On seeing that there was no hope of repealing the Act, the growing dissatisfaction of the traders took altogether a new turn. The Act was scrutinised in all its aspects by the opponents who noticed that there was a scope for running a similar organisation on independent lines. Section 5 of the Act was construed as having the

¹Bill No.XIII of 1922: "A bill to provide for the regulation and control of transactions in cotton in the Presidency of Bombay."

²Bombay Act No.XIV of 1922. Its application was however restricted to the city of Bombay only.

effect of unenforceability at courts, of contracts made under any other body except the E.I.C.A., since, it laid down that any contract contravening the bye-laws of the E.I.C.A. was simply void. It did not say anything further than this. Ordinarily this was enough to prohibit the organisation of a rival institution, for, its contracts would be void and a businessman could not afford to enter into such transactions. But the small traders and merchants found a way out by making a distinction between void and illegal contracts. This led to the formation of a new association in 1925 under the style of "Shri Mahajan Association." In fact, the formation of the Mahajan was the natural outcome of a loop-hole in section 5 of the Act of 1922. Such a contingency as the formation of any rival organisation ought to have been visualised and provided for, by making all contracts contravening the by-laws of the E.I.C.A. not only void but also illegal or punishable at law. The E.I.C.A. registered its protest against the establishment of a new body but to no purpose.

In 1930, at the instance of the trade, Government consulted the various interests and decided to appoint a committee to make recommendations for the amendment of the Act.¹ The committee was appointed consisting of an official chairman Mr. (now Sir) G. Wiles and 13 other representatives of the trade including those of agriculturists. The committee among other matters examined the problem of control of the trade in Bombay. The Act of 1922 in their opinion was defective to the extent that it did not provide for the exclusion of other associations being formed, because, the provision of contracts that contravened the bye-laws of the E.I.C.A. was not effective in suppressing void transactions. In view of this state of affairs, the Wiles Committee recommended that:

"A single association shall be given control of dealings and that the passing of contracts contravening bye-laws drawn up by the Association and sanctioned by Government shall be made an offence punishable with fine, that all forward business shall be done through members of the Association and that the Act shall pre-

¹Press Note: 17th April 1930; Government of Bombay. The operation of the Act of 1922 was extended until Aug. 31st 1931.

vent the formation of other associations for the control of forward business.”¹

Bill of 1931: A bill was introduced on these lines in the Council on 29th July 1931². It followed the general lines of the Act of 1922 except that it aimed at restricting futures dealings to the agency of a member of the E.I.C.A. and making illegal the passing of other futures contracts. It was laid down that any contract not confirming to the rules of the E.I.C.A. should be void and any person entering into such contracts shall upon conviction be liable for each such offence to a fine not exceeding Rs. 1000.³ The purpose of the bill was to give a death blow to an unrecognised body like the Mahajan Association.

The debates that followed in the Council, however, indicated the direction in which the wind was blowing. The bill was regarded as a State measure of control over the cotton trade and opposed accordingly.⁴ The point at issue was whether there should be unity of control or not. The principle of the bill was to bring about the unity of control over the trade. It was agreed on all hands that a control over futures trading was necessary, and regulation of speculation in cotton contracts was of paramount importance. The point to be discussed was whether that control should be vested in one body only. Unfortunately for the trade, the principle was misinterpreted as one of giving monopolistic control to the E.I.C.A. at the cost of small traders. Serious allegations were made against the working of the E.I.C.A.⁵ It was advanced that the control should not be vested in a single body like the E.I.C.A. but more than one association should be allowed to have a say in this matter.

¹Report of the Cotton Contracts Act Committee, 1930, p.18.

²Bill No.XX of 1931.

³Section 6 (2), Ibid.

“I am against any control.. So, Sir, I say that there should be no control and nobody should be allowed to have any control”. Rao Bahadur S. K. Bole, B. L. C. Debates, Vol. 31, 1931 pp.567-8.

“Then Sir, the members of this E.I.C.A. resort to other tactics with a view to depress prices, they combine to sell and sell and sell....The prices in Bombay are brought down by a peculiar sort of combine in which the sellers sell, buyers sell, the exporters sell, the importers sell, the brokers sell.” Dr. M. K. Dixit. Ibid p.605.

The main agitation against the bill came from the Mahajan, since, it was a question of life and death for them. They vehemently carried on a big campaign against the bill by issuing appeals after appeals and freely distributing pamphlets to the public in general and Councillors in particular. In these appeals and pamphlets they tried to point out the weak points of the E.I.C.A. and urged the necessity of maintaining their organisation. Somehow, most of the Councillors representing the mofussil strongly opposed the bill to the extent that an amendment negativ-ing the very principle and purpose of the bill was moved and carried by 44 against 41.¹ The amendment referred to the term 'association'. It stated that the word 'associa-tion' should mean the E.I.C.A. or *any other association*. As a result, the mover of the bill had to withdraw it. Thus, the bill which should have really ameliorated the position of the trade by giving effective unitary control to the E.I.C.A. was lost and the system of multiple control con-tinued to exist as before.

Act of 1932: In September 1932 Government introduced in the Legislative Council a fresh bill. It provided for the statutory recognition of the E.I.C.A. or any other associa-tion if at any time it should be found desirable to do so and also enabled Government to withdraw such recogni-tion from a recognised institution under the Act. Further, it invested Government with powers to supersede at any time, if necessary, the Board of Directors of a recognised body. Reasons for these innovations may best be explain-ed by the then existing circumstances in Bombay. In India, it was the time of the Civil Disobedience movement launched by the Indian National Congress against the Gov-ernment of India. Those were the days of Hartals and non-cooperation everywhere in every sphere. The cotton trade in Bombay was no exception to this. The result was an embarrassment of the English traders. No body could help the situation. The Board of the E.I.C.A. was unable to restore normality in spite of their passing so many reso-lutions to overcome the abnormal circumstances, as the trade in general was reluctant to cooperate with foreigners. In consequence, there arose an interruption and dead-lock

¹It is very difficult to say that this was the result of the Ma-hajan's campaign alone.

for foreigners to carry on peacefully. They approached the local Government to set the matter right who in turn asked the E.I.C.A. to put their own house in order. Because the Board failed to restore the order, Government introduced the bill and took the extreme view of withdrawing the charter given to the E.I.C.A. in case of emergency. It will be noticed that the bill was the result rather of a political countermove on the part of Government than a mere economic arrangement.¹ The E.I.C.A. registered a vigorous protest against the bill by passing a resolution² to the effect that it was unacceptable to them, because, "there was no provision for unitary control."

In spite of this, the bill was pursued on the ground that an improved legislation than that of 1922 was required to set right the cotton trade. The Act of 1925 under which the Native Share and Stock Brokers' Association works as an officially recognised body with power to Government to withdraw its recognition should the affairs of the Association be mismanaged, was regarded as an ideal measure for the cotton ills.³ In fact, Government wanted by this bill to revise its paternal attitude towards the E.I.C.A. and to recognise, in case of necessity, a body formed by a particular section of the trade who might be able to win over their approval.

In the course of debates on the bill, an amendment to clause 4 was moved to the effect that if one or more associations came forward with the requirements duly fulfilled, they should be recognised by Government. This time, the amendment was, however, negatived on the ground that in the interests of the cotton trade and growers there should be unity of control. It was stated that Government

¹"Government are really going to introduce politics into business by means of a statute. Will not this emergency be over shortly? Do you think this hartal and boycott will go on for ever?" Rao Bahadur B. R. Naik: B.L.C. Debates, Vol.35 1932, p.73.

²Annual report of the E.I.C.A. for the year 1931-32.

³It should however be noted that the present Act cannot be said to be an ideal one nor can it be regarded as aiming at unity of control since under the very Act there exist more than one body in Bombay to control and regulate the business in Stock and Securities.

was not in favour of dual or multiple control.¹ The bill was then read a third time and it became the Bombay Act No. IV of 1932 providing for the "Better regulation and control of transactions in cotton in Bombay."

By enacting this piece of legislation Government established their attitude towards the E.I.C.A. Of course, the association was given due recognition under the Act and the principle of unitary control by a single body was accepted. But the alternatives of withholding the given recognition and recognising another body or superseding the recognised body, in case of an emergency, by an official body were confirmed by the Act of 1932. The principle on which the previous bill of 1931 was thrown out by the Council was duly recognised and accepted in a modified way in the sense that contracts contravening the bye-laws of a recognised body were not made illegal or punishable at law which the previous bill sought to effect.

Bill of 1935: Since no penal clause was embodied in this Act there was nothing to prevent the Mahajan or any other body to function except that its contracts were unenforceable at courts in British India.² The Mahajan therefore continued to function as usual. The trade in general resolved to put an end to this duality of control. Hence, a bill was introduced in November 1935, to amend the Bombay Cotton Contracts Act No. IV of 1932.³ This bill was introduced on private initiative and not by Government. It aimed at giving the control to the E.I.C.A. by making the contracts contravening its bye-laws not only void but also illegal and punishable at law.⁴ The Mahajan realised

¹The Hon'ble Sir Ghulam Hussain said that, "If we are to recognise six, seven or eight associations, then there will be absolutely no control in the market. Every civilised country has unitary control." B.L.C. Debates, Vol.35, 1932, p.205.

²In 1932, another association under the style of the 'Indian Cotton Exchange' was formed in Bombay for the purpose of carrying on futures trading in cotton. For one or the other reason, traders did not rally under its auspices in a large number. Before its winding up on account of litigation no heavy transactions were put in.

³Bill No. XLVII of 1935.

⁴"There should be efficient unitary control in the interest of forward cotton trade in Bombay city. That has prompted me to bring in this measure." Sardar Rao Bahadur B. R. Naik: B.L.C. Debates, 1936, Vol.44, p.1412.

the strength of this measure and presented to Government a memorandum accepting the principle of unitary control in futures trading. In the course of debates in 1936, the bill was, however, deferred to the next session and was ultimately withdrawn.¹

Proposed amalgamation of the rival bodies in Bombay: In 1937, when the Congress Government came in power the E.I.C.A. once again rose to the occasion and approached the National Government for effecting unitary control over the premier trade of Bombay. The attitude of Government was quite clear on this point. They promised to go into details of the problem and to set the matter at rest once for all. They invited the views of all the interests concerned on the question of making illegal all futures contracts except those made through a recognised association. They appreciated the point that the Act of 1932 had failed to achieve its objects of unitary control and eliminate excessive speculation. They therefore accepted that the principle of effective unitary control was the only salvation. For this purpose, it was realised that a penalty clause was closely interrelated to the principle of effective unitary control, since, one could not exist without the other. By this time, the past experience of the trade also suggested that penalty would further assist in checking undue and inordinate speculation which the State sought to bring about. Government ultimately made up their mind that in order to pack up the troubles of the cotton trade, penalty and unitary control should go together.

On the other hand, the Congress Government spared no effort to bring about a lasting compromise between the two rival bodies. In June 1938, the following proposals were suggested by Government as a fair compromise between the E.I.C.A. and the Mahajan:

- (i) That a ring be created for the smaller trader to operate with a unit of 20 bales.

¹"The bill met with opposition from certain quarters and the Government of Bombay were unwilling to give it the support which might have ensured its smooth passage through the Assembly." Sir Purshotamdas Thakurdas: Evolution of the Cotton Trade of Bombay, Indian Textile Journal. Jan. issue, 1941, Jubilee Number.

- (ii) That operations in the small ring be restricted to trading to a maximum limit of 2000 bales for each settlement.
- (iii) That members operating in the small ring be required to pay a deposit of Rs. 3000 (inclusive of their existing deposit with the Shri Mahajan Association).
- (iv) That members trading in the small ring be allowed to select two representatives to the Board of the E.I.C.A.

Government especially requested that representatives of both the associations should meet and adjust their differences amongst themselves even if these proposals involved modifications to some extent. The two associations first met for the purpose on 12th September 1938 but could not come to any agreement in regard to points number 2 and 4. Another attempt was made towards the end of December 1938 which also did not succeed as differences on point number 4 could not be wiped off entirely. In 1939, Government again suggested that further efforts be made towards bridging the remaining differences. Consequently, further discussion took place and an agreement on the issue of amalgamation was reached in June 1939.¹ Accordingly a bill was to be introduced in the Legislature and effective unitary control was to be accorded to the E.I.C.A. In the meanwhile, the Congress Government resigned and the bill could not be taken up for want of time. Hence, the question of unitary control remained hanging in fire.

Origin and Utility of the Panel System: Involved in the question of unity of control is the issue of the panel system or the constitution of the governing body of the exchange. This is another vexed problem with which the trade is confronted today. The question of the constitution of a controlling body dates back to the Act of 1919 under which the Cotton Contracts Board functioned. This Board was composed of a chairman and 11 members. The chairman and 6 of the members were to be appointed by the Government. Of the 5 other members, 3 were to be elected by the members of the Clearing House and 2 by

¹The Times of India, 25th June 1939.

the Millowners' Association.¹ It will be noticed that the origin of the system of panels thus lies in the constitution of the Cotton Contracts Board and the idea of sections or panels crept in the trade with the passing of the Act of 1919.

With the repeal of this Act the life of the said Board came to an end but its precedent remained and had its repercussions on the newly formed association. The principle of representation to the Board accepted at that time was that representation of interests is of more importance than that of individuals. Each section of the trade composed as a body had some misgivings about the other. This made them discard the principle of democratic representation in favour of sectional and narrow interests. There was the apprehension that if the individual representation was provided for, the institution would become an association of brokers who were then as now in a majority. The trade in turn resorted to the panel system, as a temporary measure giving each section a special representation on the Board of Directors. At first sight the system might strike to an outsider as curious, but the institution of panels was the only measure which enabled the E.I.C.A. to come into life as a representative body of all sections and interests of the trade. Had the panel system not been devised, there would have been no unity and no agreement among the various interests in Bombay. By this system different sections got representation on the main body consonant with what they considered to be their interest and stake in the trade.

In 1930, most of the members of the Wiles Committee showed their willingness to abolish the panel system in favour of election by the general body. They expressed that the system was not conducive to the betterment of the trade in general, since, it made the trade think in terms of compartments. Some of the members, however, were not ready to part with their sectional views. They apprehended that their interests were not safe in the hands of the general body, and for that reason alone they demanded that the existing system should be allowed to remain. Hence, on this as well as on the question of election of the Board of Directors, the Committee was divided.

¹Act of 1919, Section 3 (i) (ii) and (iii).

The majority suggested the election to be by the general body but the minority demanded that each section be elected by the members of the respective panels.¹ This recommendation along with others was embodied in the Act of 1932 and the panel system continued to function.

4. PROBLEMS OF REGULATION IN INDIA

In India, the problem of regulation of futures trading and markets has come very recently into prominence particularly since the advent of a rival body in 1925 to the E.I.C.A. At present the futures trading in Bombay is under control of the institutions namely, the E.I.C.A. and Shri Mahajan Association.² The problem is the most vital one to all those who are interested in the handling, marketing and consuming of cotton in India, since the price of cotton is the concern of millions of farmers and thousands of merchants, traders and consumers.

Two clear-cut issues are involved in this question, viz., (1) Unitary Control and (2) The Constitution of the Board of the Controlling Authority. This also involves the question of limited or unrestricted powers of the Board.

(a) **Unitary Control:** The trade, as we have seen, is governed by the Act of 1932 and the E.I.C.A. is given sole authority to conduct the trading in cotton futures. In spite of this, the fact remains that other associations do exist for the same purpose. Under these circumstances, the present position of the cotton futures trading is really anomalous. The principle of unitary control is embodied in the Act but the regulation is not effective. As a result, the duality of control exists in the trade which is most detrimental to all the interests concerned. It has increased the amount of speculation by leaps and bounds. There is no limit to the extent of pure and simple gambling under the shield of genuine speculation that is going on now-a-days in the City and Presidency of Bombay. This is the most deplorable state of affairs which no country in the interest of the trade and growers can afford to tolerate.

¹Report of the Wiles Committee, p.18.

²Trading in spot cotton is conducted solely under the auspices of the E.I.C.A. Hence, it presents no such problems as does the trading in futures.

Recently a scheme of 'model bye-laws' has been suggested by one writer¹ both as an alternative and a solution to the problem of unitary control. Under this scheme, any number of organisations may be formed and run provided that they all follow the bye-laws laid down as model by the State. The disadvantages of this proposal are so obvious that it is hardly necessary to enlarge upon them. In fact, if more than one body is given the power to regulate the trade and to exercise control over it, it would not only create conflicting interests but also cause some confusion. The proposal if translated into practice would create such conditions as to have the effect of defeating the very object which the trade seeks to promote. The control which is intended to be introduced can be compared with that of a local self-government or Municipal Corporation in a particular town.² One cannot have two bodies in any one town trying to run its administrative affairs. In a Corporation there may be rival parties but they are not allowed to function simultaneously. Again, the scheme of model by-laws is not free from limitations. It is unworkable in the sense that the administration of different associations will differ. There will be different rates. Speculation, perhaps, nothing short of gambling will be the only result. It will adversely affect the cotton price.

Further, is it not better in order that the cotton interests may know where they stand to have a single regulating body rather than have a number of bodies? There can be no such thing as healthy competition between two or more rival bodies controlling one and the same trade. Moreover, control by more than one association means the negation of regulation in practice. Having a number of bodies all following the model bye-laws, it would be impracticable to have unitary control. If there is to be unitary control and if it is to be effectively carried out it must be vested in a single body. That body should have ample authority to deal with situations that may arise from time to time and to

¹Dantwala, M.L.: Marketing of Raw Cotton in India, 1937, p.257.

²"Our idea of unitary control is that there should be one body in one town to control and regulate dealings in cotton." Personal interviews.

enforce its decisions thereon. This body should therefore be a well organised institution like the E.I.C.A. representative of all sections of the trade. Three principal reasons why it should be the E.I.C.A. in preference to the Mahajan are: (i) It has arisen through the union of all other associations who formerly tried to control the trade in Bombay, (ii) when the E.I.C.A. was formed there was no other association which could be said to have a great stake in the trade, and (iii) the Mahajan Association is a mushroom growth which was organised after the establishment of the E.I.C.A. It may therefore be hoped that the sooner this problem is put an end to by giving effective unitary control to the E.I.C.A., the better for all.

(b) Constitution of the Board of the Controlling authority: The question of the constitution of the controlling authority has become a burning issue to the trade in Bombay. Because the present system of panels divides the whole trade into unnatural and self-centered groups, it does more harm than good to the trade in general. It must be admitted that when the panel system was devised nothing else was feasible. Even in 1930, it was feared that if the panels were not retained, certain interests would preponderate and sweep over the rest. Today, the issue is that can reasonable representation of all interests on the Board of Directors be insured without dividing up the trade? This is the crux of the whole problem.

The main drawback of the present system lies in its unrepresentative character. Panels do not either truly or adequately represent on the Board the various classes in accordance with their relative importance. For instance, the buyers' panel and the sellers' panel return 4 representatives each to the Board though their numbers of membership are 47 and 96 respectively. There are 198 brokers and still they are allotted only six seats on the Board. Now whichever way one looks at it, it overbalances the other. To artificially balance the Board, one will have to define strictly who will go on the brokers' panel, who on the sellers' and who on the buyers'? At present, the situation has developed to such an extent that any one member does business in all the three panels and it is difficult to say that he is only a buyer, a seller or a broker, because,

he combines all three functions.¹ In fact, the dividing line between the various groups is very thin and at times misleading which renders the panel system not only futile but also dangerous in its working.

Again, apprehensions as to the neglect of interests of a particular section by the general body are based on the comparative ignorance of the real interests of the general body of members. It is argued that those who handle ready cotton have a greater stake in the trade than those who deal in futures and hence, to safeguard the interests of the people dealing in spot it is necessary that panels should be allowed to continue. Against this, it may be pointed out that the interests of spot dealers are confined to the production of the crop and its availability in Bombay only, while those of the dealers in futures extend over a vast field since business in futures comes not only from all corners of India but also from every part of the globe. It is therefore natural to emphasise here that the stake of those who deal in futures is at least equal, if not greater, to that of spot dealers. For this reason, it is but fair to allow the trade to form the controlling authority by fully trusting the good sense of the general body.

Another argument that is suggested is that the retention of panels has some deep concern with the powers of the Board. It is true that the Board has vast and almost unlimited powers in matters of bye-laws and committees. This trouble can be amicably solved by resolving that all the standing committees including the committee on bye-laws and discipline should not be nominated by the Board but be elected by the general body as is the practice in other similar associations abroad. If important decisions are arrived at by these committees who will be independent of the Board by virtue of their being elected by and made responsible to the general body, there would remain no reason for demanding any more special representation

¹"The system had its utility no doubt. Now it is not needed since the trade has developed to such an extent that no one remains within the allotted panel but does the work of all panels. For instance, we are buyers, sellers, brokers, muccadums, and what no? There are so many members falling in our category. Therefore, we say that the system has outlived its utility and we should adopt the democratic principle of representation to the Board." Reply to questionnaire.

by way of panels. This will make the whole situation democratic and thoroughly representative of the premier trade of Bombay worthy of its name. The time has now arrived for broadening and democratising the constitution of the Board and for bold as well as decisive measures to be taken for this purpose as soon as possible. The directorate of the controlling body should be elected by and be responsible to the general body of members and the panel system should be abolished. Such controlling body will and must look after the interests of the trade in general. It will then be a more homogeneous whole than it is now.

It will be observed that the Bombay Act No. IV of 1932 under which the trade in India is controlled and regulated needs a thorough overhauling. To solve the problems of regulation in our country a new law granting effective unitary control to the E.I.C.A. and making the constitution of its Board democratic is long overdue and must be passed at once to replace the present Act.

5. CONCLUSION.

In view of these considerations, the conclusion seems inevitable that there should be an effective unitary control by a single body officially recognised by Statute, as in other countries, making all contracts contravening the bye-laws of such a body not only void and illegal but also punishable with a fine. Further, the constitution of such a body must be democratised on the acknowledged democratic principle of representation, viz., one man, one vote. The general body should also be given more powers by way of taking away the powers of nomination of the standing committees by the Board and accepting the principle of election of all such committees by the general body to whom the Board and these committees should remain responsible.

CHAPTER XIV.

SUMMARY AND CONCLUSIONS

WE are now in a position to put together the results of this study. It will be noticed from the preceding pages that a futures market performs several important functions rendering genuine economic services most vital to the marketing of raw cotton. Cotton exchanges are of great use to the trade for the orderly distribution of the staple, from the field to the factory. A futures market is a clearing house of all information. In seeking new sources of information and in registering promptly the news which comes to the market, the exchange goes further than mere acting as a clearing house of information for the trade. It acts as the record office too. The very fact that the futures markets are operating for 70 years and that new exchanges have come and are coming into existence does of itself signify that they have a useful and beneficial place in our economic life.

1. PLACE OF A FUTURES MARKET IN THE COTTON TRADE AND INDUSTRY.

The central feature in the economic organisation of modern society is the market. From an individual point of view the production and distribution of commodities are carried on for the purpose of exchange. The tests of perfection of an organisation of trade are the promptness with which such transfer is effected and the accuracy with which it is carried out. In fact, the entire trade of the world centres around the futures market. In a futures market a composite judgment of all the traders is recorded throughout the trading sessions. Hence, such a market can be said to reflect the consensus of trade opinion. Considering the fact that hundreds of thousands of people are engaged in the task of handling the world's raw cotton from the original producer through complex channels to the ultimate consumer, the futures markets of the world have reached a remarkable stage of organisation. The increased use of cotton futures markets in India as well as in foreign countries bears testimony to the vitally important place held by them.

A Futures Market is an auxiliary institution: Though one of the highest forms of mechanical and technical efficiency is found in a commodity futures market, it is not used as a means of merchandising the goods itself. In the first part of this work, we have seen that only a fraction of the total amount of cotton dealt with on the futures market results in actual delivery. This fact shows that a futures market is not meant to be used as a channel of actually merchandising the commodity. It is availed of rather as an aid to the successful distribution of it. For the actual marketing of cotton, one has to look elsewhere. Because there are so many different classes of cotton with specific uses, a futures market is ordinarily an unsatisfactory place in which to buy or sell the actual staple. Those who deal in spot cotton avail of the price recording facilities of a futures market at all stages of marketing and manufacturing of cotton, without making or taking a delivery against their sales or purchases of futures contracts. In fact, commodities were produced, transported, sold and consumed hundreds of years before the first futures market was organised. It was not developed as a channel of distribution through which a farmer disposed of his product and a manufacturer procured his requirements. It can therefore be stated that a futures market developed rather as an auxiliary institution connected with speculation in prices, the financing of the trade and the counterbalancing of the business risks. Its economic functions also lead us to the same conclusion, since, almost all the vital services rendered by it are those of an auxiliary character to the distributive system. While it is not a direct link in distribution, it offers so many genuine services to a dealer of the physical commodity that it has become almost indispensable in the orderly marketing of the world's leading staple of commerce.

The Importance of the Futures Market: If a futures market is done away with, it would tell heavily upon agriculture and manufacture alike, since its insurance service will not be available. A good price-barometer indicating changing prices provided by a futures market will also be lost. By the disappearance of the price protection, those engaged in the marketing process will be forced to operate on wider margins; paying less to the producers and charging more to the consumers. Thus, in reality, the dealers would hedge their marketing operations and producers as well as con-

urners would be made to pay the toll. The information received by us on this point shows that the effect of a lack of futures markets (a) on agriculture, will be lower return, (b) on trade, general restrictions, (c) on commerce, decreased activity, and (d) on industry, lessened demand for industrial products. In this way, the importance of a futures market is vital to the trade and industry as a result of which it is used more and more now-a-days. In fact, the more a futures market is extended to reach the two extremes of the chain, the better for everybody.

Effects of closing the futures markets: To clearly bring home the necessity and importance of the futures market, we may refer to the situation created by the closing of the market in certain centres. At the outbreak of the world war of 1914, the cotton exchanges both in Liverpool and New York were closed for several months.

(a) **Experience of Liverpool and New York:** The prevalence of extreme market fluctuations at the outbreak of the last war and the failure of firms dealing in futures made it necessary to close the markets both at Liverpool and New York. When the markets were closed, the cotton trading was largely at a standstill. There was no definite world market. Prices differed in different towns. The variations depended on the sales in sight. Chaotic conditions in the trade were the immediate results. Merchants could not safely buy cotton, because they could not hedge. The same was true of other interests. In Liverpool, the authorities were urged by the British Board of Trade to make possible the resumption of futures operations. Similarly, in New York, the Board of Directors received continual appeals from spinners, farmers and merchants to reopen the market. Continued pressure was brought to bear on the respective authorities and Governments by various interests, emphasising the difficulty of carrying on business in security or confidence without the functioning of futures markets. Thus, it was not long after the exchanges were closed in Liverpool and New York that there were demands for reopening the same.¹

¹The American Exchanges were closed once again during the 'Bank Holidays' March 1933 for a period of 14 days. It is needless to add that the closing of the exchanges had a paralysing effect on the American cotton trade.

(b) **Indian Opinion:** In order to elicit Indian opinion on the question, we asked for the same from several well-known firms with reference to the closing of the exchange during the war. We give below the consensus of opinions received to different aspects of the question that we could gather:

- (i) Traders could not form any idea of the ruling price of cotton.
- (ii) The cotton trade was thrown in darkness.
- (iii) Farmers received lower prices though the consumers were charged higher prices.
- (iv) Margin between the cost of raw cotton and the sale price of finished article became greater.
- (v) Trade activities were decreased.
- (vi) Prices varied to any extremes.
- (vii) Cotton trade as a whole suffered much; both in respect of accommodation and values.
- (viii) The factory-owners and agriculturists had no hedge to limit their risks. Same was the case for spinners and merchants.
- (ix) The exporters could not sell forward delivery cotton.

A glance at these opinions will indicate how important and indispensable a futures market is in the economic life of modern society. It is a legitimate institution necessary for the successful handling of cotton business. Facilities are afforded to every section of the trade by the existence of a futures market. Operations on such markets are of direct interest not only to their members and millions of farmers as well as spinners but also indirectly to the public at large.

2. ECONOMIC SERVICES OF A FUTURES MARKET TO THE COTTON TRADE AND INDUSTRY

Cotton Exchanges in India: In India, the growth of cotton exchanges as economic institutions for the distribution of cotton was as natural as the growth of any other economic institution. It is of interest to note that the spot business in cotton came first, then 'to arrive' contracts and out of these two developed the modern system of futures markets where futures trading is carried on, on an extensive scale. Trading in cotton futures has been conducted now for several decades. It should, however, be pointed out

that the East India Cotton Association, the Karachi Cotton Association and other Indian futures markets are of recent origin; they were set up after the post-war commercial boom.

We have seen that the E.I.C.A. and the K.C.A. maintain:

- (i) Different hedge contracts for different varieties of Indian cotton.
- (ii) A reasonable size of the unit of the contract, namely, 50 bales.
- (iii) A modern clearing association for periodical settlements and delivery of cotton; and
- (iv) A spot market.

Besides, they gather from every part of the world, news bearing upon the existing supplies, visible and invisible, production and its prospects, carry-over, local and world prices in futures markets and similar materials of value required by members and the trade at large. This information is placed before the buyers and sellers to keep them in touch with every price influencing factor known so that the operators and the investing public may intelligently determine their procedure in their best interests.

On the other hand, Shri Mahajan Association, Bombay and the rest have: (a) only one hedge contract against all the varieties of our cotton, (b) smaller unit of 10 bales, (c) no clearing house, and (d) no interest in the spot business. Moreover, none of them takes the trouble to furnish its members with the valuable statistical information. For all practical purposes, the cotton futures markets in India should therefore be divided into two groups. The E.I.C.A. and the K.C.A. should be placed in the first group, both of them being of major importance. The Mahajan Association, Bombay and the rest should be included in the other group, they being of minor importance.

Hedging and Hedge Contracts: The principal service of the cotton futures market is to afford hedging facilities. In order to protect against losses occurring under unforeseen circumstances in a business, there is a tendency among businessmen to insure against everything. The trade in cotton is not an exception to the policy adopted for the main reason that the position of an uninsured trader in the market remains precarious due to wide fluctuations in

prices. By the use of a futures contract, a limit is placed on the possibility of loss and the protection thus obtained is in the nature of price insurance. To serve the purpose of hedging, a futures market must be broad. A broad market makes possible the putting on or taking off, of hedges for large amounts with the minimum price disturbance. This characteristic is largely the result of giving the professional risk-takers and the public a convenient means of trading in futures on an organised market. Besides the requirements of breadth, hedging needs continuity in a futures market. The importance of a continuous futures market can be better appreciated when it is realised that it affords the dealer a market ever ready to absorb as large a stock of cotton as he desires to unload. Similarly, a dealer whose spot cotton may not have been sold for a moment gets an opportunity of selling it through futures which gives him an outlet for delivery. Thus, the fact that the market is continuous is itself an insurance against the risks of unsold cotton. However, it may be noted that the continuity in a market is disturbed when it responds to manipulation which makes the situation abnormal. Under normal circumstances, a futures market is so broad and continuous that any large order registers no appreciable effect on prices which are quoted from minute to minute. It is this character of continuous price quotations that is more important to a hedger, because, price quotations of the futures regularly form the basis of bidding in the spots. Because a ready market for the whole marketing season is always at the command of the buyer and the seller, cotton is also established as desirable collateral for bankers.

For the purpose of hedging against Indian cotton and cloth, the markets of major importance, viz., the E.I.C.A. and the K.C.A. are well-equipped and better suited. So far as the extent of hedging is concerned, our conclusion is that a cotton futures market in India is used for hedging as a regular practice by merchants, dealers, and though indirectly to a considerable extent by manufacturers. But the average Indian grower or factory-owner makes very little use of hedging.

While hedging supplies an effective means of insurance against fluctuations in prices, it should be admitted that it

does not give complete protection to a hedger. The protection furnished by hedging is imperfect because there is no cover against changes in 'basis'. Apart from facing the situation arising out of the variations in basis which cannot be hedged, the hedger in India has to countenance the additional risk. This additional burden is the direct outcome of the faulty construction or 'technique' of the present system of hedge contracts in the Bombay market. Hence, a rational reconstruction of the hedge contracts with a thorough overhauling of the existing system is long overdue. Though the matter is receiving some consideration at the hands of the E.I.C.A. a formula agreeable to all the sections of the trade is yet to be evolved. Our suggestion in this direction is that the system of hedge contracts in India should be based neither on one hedge contract for all the principal growths of Indian cotton, nor on a large number of hedge contracts for different styles. Our conclusion is that there should be only three contracts for our market and they should cover all the main varieties of Indian cotton. These three hedge contracts should be framed as under:

1. Fully Good Bengal Contract: It should be as at present with the addition of Kathiawar—Muttia—cotton. The basis of Bengal should be 'Fully Good' while that for Muttia should be 'Fine' so that only clean Muttia should pass in survey and not inferior quality. Karachi being the natural port for Bengals, less and less of this cotton will be railed to Bombay in future. Hence, the addition of Muttia will not make it a bear contract. The seller should be given the option of delivery either at Bombay or Karachi. This would create a revival of interest in this contract. Months of delivery should be single: December, January, March, May and July.

2. Fully Good Broach Contract: The present Broach and Southerns contracts should be amalgamated into one, except that Surat, Navsari, Cambodia and Karunganni be excluded from the new contract, because, these superior varieties tend to scare away the buyers and investors. Other conditions should be the same as at present except that the basis should be 'Fully Good' throughout and no cotton below $\frac{3}{4}$ " staple should be tenderable. A condition about class and staple will eliminate all inferior classes

and low staple growths. Delivery should be in single months; March, May, July and August.

3. Fine Oomra Contract: This contract should also include Khandwa-Burhanpur and Khandesh cotton. Basis should be 'Fine' for all styles. Delivery months should be single; December, January, March, May and July.

Cotton Prices: The main object of the marketing system is to ascertain the proper price of every commodity which passes through it. As a corollary to this, it also aims at securing uniform prices for a particular commodity throughout the world. It is the futures market that renders possible the conception of a world market. The futures prices ruling during the trading hours are readily ascertainable, because, at any time they can be quoted on the market. They are given free publicity in the world's press. It is on the published market quotations that all interested in the trade rely in every day business affairs. The price paid to the growers generally depends on the price of futures. Besides, the price determined on a futures market serves the following purposes: (a) it indicates the market value of cotton, (b) it is used as the settlement price for futures contracts; and (c) it acts as a guide to upcountry agents in their transactions. Since, each day thousands of bids based on the futures quotations are received by producers and country dealers, and thousands of offers based on such prices are sent to mills and distributors, the price-registering function of a futures market is of considerable importance. Without this service the interests of producers and consumers would suffer most because they would not know the price of cotton from hour to hour and day to day. Every information affecting present or future prices registers its influence immediately in a futures market. It may be weather conditions in the Broach District or in the American cotton Belt, business conditions in India or England, labour troubles in Ahmedabad or Lancashire and the outbreak of war between Poland and Germany, all these news are instantly recorded and their effects registered in futures prices. A futures market as compared to a spot market is highly sensitive, keenly competitive, and more responsive to every change in market opinion. Hence, the price quoted at any moment, represents a balanced judgment of those buying and selling in a futures market.

It is through a futures market that the dealers are enabled to exercise their best judgment to discount the future at once in the form of actual transactions. For instance, the effect of a short or a bumper crop upon prices is discounted long before it would otherwise be realised by the general public. The daily discounting of current events thus tends to subsidise the sudden decline or rise in prices which otherwise would have occurred upon wide publication of slowly developing events. The existence of such a market where cotton is sold at a price which will not be ordinarily dislocated by any amount of sale or purchase, is of great service to the various interests, such as, agriculturists, manufacturers, investors, etc., who wish to anticipate the future trends of prices for their individual interests. While describing a futures market as a price-registering organisation, it is not an exaggeration to say that the price registration is the most vital service upon which hedging and financing of the trade depend.

Facilities afforded for hedging to all those who need protection is not the only point in favour of the E.I.C.A. or the K.C.A. but the price-level established there has a far-reaching significance both in India and abroad. Therefore, if prices can be successfully forecasted in advance, our exchanges will tend to render the economic service of the highest order to the cotton trade and industry. Having examined the difficulties that a successful forecaster has to overcome in general and for Indian cotton in particular, we have come to the conclusion that the price of cotton futures cannot be forecasted for minor fluctuations and for a duration of time involving several months. All that can be achieved is that the trend can be foretold for the period immediately ahead. The reason for this lies in the fact that over and above the difficulties involved in arriving at the world's total supply and demand for a given season, general economic and political developments influence cotton prices so often, that it is impossible to isolate both their relative importance and respective influences. Moreover, the minor variations are the products not of one but of a variety of causes. These causes can never be visualised in their proper perspective in advance. Though the short-term factor or factors causing minor variations are not the fundamental forces determining the price in the

long run, they are certainly the factors deciding precise points for the purchase or sale of a futures contract for a given day, week or month. For this reason, they are of greater concern to a dealer on a futures market than any other single group of factors calculated to affect the price of cotton. Even among the short-term forces, by far the most important factor influencing the price is the market-news. Interpretation of news by traders on a futures market assures a degree of anticipation of future events that would not otherwise be possible. Hence, if the present standard of information that is circulated to the trade and made available to the public is materially improved, better results can certainly be obtained.

Badla Business: The futures price quoted on a particular market represents the general price-level of the growth or growths dealt in that market. It is this element of general price-level that can be compared with those ruling on the different futures markets of the world. This is rendered possible only by a net work of communication services connected with the futures markets all over the world. It is in these markets that all the buyers and sellers of the world meet throughout the working hours of a trading day and exchange their views regarding prices. As a result, allowing for the cost of transport, etc., plus the difference in quality, cotton prices in different markets are rendered uniform. This makes it possible to link together the different markets of the cotton world. When such uniformity in a particular market is disturbed, the operators generally known as 'straddlers' try to bring about the necessary adjustments by operating in other markets. Straddlers enter into badla business between the different markets of the world and assure that so far as it can be accomplished by human foresight the coming events will be reflected on the present price-level before their actual appearance. Should the price in one market, considering cost differentials and quality be out of line with the price prevailing in another, a straddler will buy in the low and simultaneously sell an equal amount in the high market. The product is thus caused to flow from a place where for the moment it fetches low price to the place commanding a high price. A straddler by a constant watch keeps all the leading markets 'into line' with

one another. This is an important though most technical service rendered to the cotton trade by a futures market to our modern industrial society.

Teji-Mandi Transactions: Although a transaction in Teji-mandi is not officially recognised in India, it forms a popular medium of dealing in cotton. No doubt, from the stand-point of a buyer the teji-mandi transaction is both commercially healthy and economically sound. Hence, the business on leading exchanges in India assumes such a volume that it affects the trend of cotton prices, especially in Bombay. In what direction the price fluctuations will be accentuated depends upon the position of a seller of teji-mandi contracts. There can be little doubt as to the fact that the position of the seller of options, as we have explained above, tends to influence a price-level in a given market. If a large amount of teji-mandi transactions happen to accumulate on any one position of any one contract, the natural sequence is that a seller of options has to buy in a rising market and sell in a falling market. In other words, the operations of a seller of options help both the bullish and the bearish trends of prices. We would therefore suggest that the transactions in teji-mandi should be officially brought under control and a limit be prescribed on a seller's trading in options. For this purpose, a formal recognition of teji-mandi transactions is absolutely necessary. But such a recognition must be qualified by a proviso that in order to restrict a seller's dealings, rules should be framed imposing the maximum limit of amount and quantity beyond which he cannot sell options on a particular position of a particular contract.

Speculation: Recognising the value of hedging and continuous price quotations on a futures market, the speculative transactions must be regarded not only as inevitable but also as desirable operations. Similarly, the existence of continuous price quotations pre-supposes the existence of a speculative market. If it were not for the futures market and the existence of professional dealers, the vast quantity of cotton lying in godowns amounting to crores of rupees would not be available for business purposes except in a very crude manner. By the existence of a speculative market, a commodity is rendered less expensive, because, the margin of profit is cut very fine. The fact of an open

market with quotations freely distributed, keeps both the producer and consumer in close contact with the price-level resulting in the narrowest of the handling charges. Traders are enabled to do more business with less capital, for, bankers are willing to enlarge greatly the volume of credit on commodities dealt on a futures market. In any field of business activity, the element of risk is generally represented in price. The greater the risk of the dealer, the wider his margin of profit must be. A dealer who can rid himself of the risk incidental to price hazards can afford to do business on a small margin of profit.¹ In the absence of a futures market spot transactions would need to be made at somewhat wider margins. It is only due to the existence of a speculative market that prompt and ample finance are forthcoming and the marketing is rendered cheap as well as easier. But for the quality of liquidity, the banks or financiers would be reluctant to finance the movements of the crop. The element of liquidity provides a banker with an ever-ready market in futures and gives him confidence that he will be able to sell cotton at a moment's notice and get his money back should the necessity arise. The liquidity of futures rests essentially on the fact that personal risk is largely eliminated. Each member deals with all others indiscriminately, because, the obligations of the futures are made transferable.

The general characteristics of a futures contract, though highly technical in nature, render its form so clear and simple that it requires no immediate attention of the trader to greater details. Its upshot is that transactions in futures are indiscriminately carried out both by professionals and the public. Consequently, speculation sometimes degenerates into gambling. Again, it cannot be denied that under certain circumstances, the price may be manipulated or dictated by some operators at the cost of others. While these circumstances may be natural or artificial and the shrewd dealers may be taking due or undue advantage of the situation the fact remains that our market, at times, is considerably influenced by their activities. The manipulative action of a speculator tends to injure the interests

¹Evidence recorded to our inquiry points to the effect that an average net profit to the Middleman after deducting overhead charges and interest on capital comes to about one per cent.

of producers or consumers and sometimes of both. The modern system of trading in futures, therefore, proves itself a convenient scapegoat in India, particularly in Bombay, for all the evils of the trade. Abuses of the speculative system disrupt the machinery of legitimate speculation in futures on an organised commodity market. They not only constitute a menace to a futures market but also cause grave injustice to an economic institution like the E.I.C.A. or the K.C.A. Hence, some drastic measures must be taken before the evils of speculation gather momentum to interfere with its benefits.

Our suggestion to suppress the inordinate speculation that is going on in Indian markets are:

1. The shortening of the period of clearings, i.e. to maintain a bi-weekly settlement if not daily on the leading exchanges.¹
2. The introduction of a system of maintaining a minimum amount of deposit with the clearing house; and
3. The adoption of the compulsory margin system for clients in proportion to the magnitude of the business put in.

We believe that sooner these suggestions are put into effect, the better for the trade in general.

Control of futures trading and marketing: An organised market provides and enforces rules for the conduct of business. It also establishes bye-laws for the settlement of disputes. Such a market is characterised by a comprehensive system of rigid rules especially when compared with a spot market. In a business where producers and ultimate buyers are so widely scattered, it is easy to appreciate how a lack of rigid and systematic control over the morale and practices of various individuals constituting the market would lead to chaos and misunderstanding. Those dealing in futures need a definite basis of understanding expressed in established rules, because, the futures contract does not relate to any specific cotton but is a basis

¹It is gratifying to note that after our discussion with the leading merchants, and operators as well as due to the present abnormal (war) conditions, the period of settlement has been shortened from a fortnight to a week since Sept. 1940. See also Appendix A.

contract. The multiplicity of rules of an exchange is largely to be explained by the aim, on the one hand, to make the contract perfectly general in all its aspects, and on the other, to make it enforceable at law. In addition, a futures market provides for the controversy that may arise from the qualities and from matters connected with accounts, between persons engaged in the trade. A machinery known as adjustment by arbitration is prescribed. It tends not only to foster high standards of business morality and trade usage but also to minimise litigation. It further simplifies and even expedites the process of marketing.

One of the main objects of a futures market is to establish just and equitable principles and to control, promote as well as regulate the trade in any particular country. For this purpose, it regulates trading and provides for its conduct in an orderly manner. It is through an organised market that various improvements are affected in the trade practice and customs. It is instrumental in bringing about uniformity in rules and etiquette. An exchange also exercises control over speculation when it becomes inordinate and wild. In this connection, it will not be an exaggeration to say that there is no greater commercial problem in India than the problem of regulation and control of futures trading and futures markets in cotton. Our analysis of this problem, however, points to the conclusion that if the authorities make up their mind and pursue the question earnestly the problem is not so difficult as it appears at first sight. If the Government, once for all decides to grant an 'effective' unitary control to the E.I.C.A. the problem is capable of being easily solved. Of course, the principle of unitary control is accepted by the State and embodied in the Act No. IV of 1932 under which the only recognised body is the E.I.C.A. but the pity is that the control is not made effective. The control is not effective in the sense that other institutions whose stake in the trade is questionable are allowed to function not only in different places in our country but also in one and the same city like Bombay or Ahmedabad. In consequence, today, duality of control exists which is detrimental to the trade as a whole.

Our submission in this matter is that in order to remove the troubles of the cotton trade, the unity of control should

be made effective under the auspices of a single body officially recognised by statute making all contracts contravening its bye-laws not only void but also illegal and punishable at law. Further, in order to put an end to the panel system which has outlived its utility, the Board of Directors of a statutorily recognised institution should be elected by and be responsible to, the general body of members. This would tend to do away with the division of trade into buyers, sellers or brokers. It would then certainly create a wider outlook and better atmosphere for the cotton trade of our country.

3. FUTURE OUTLOOK FOR A COTTON EXCHANGE IN INDIA.

However important an economic organisation like a commodity futures market may be, its shortcomings should never be lost sight of for the reason that after all, it is also a human institution and as such, is subject to man-made factors. Granting for a moment that the control in India is made effectively unitary, the problem of regulation of futures trading and markets will not be completely solved, because, even if the effective unitary control is vested in a single democratically constituted body like the E.I.C.A., it is possible that some of its own members may frustrate the very purpose of the legislation. Excessive and inordinate speculation could be carried on even in a single body. At times, such activities make the market unhealthy by becoming the cause of violent price fluctuations and by rendering the futures contract of little use both as a medium of hedging and as an indicator of the price-level. Hence, these undesirable activities should be controlled by legislation. Such activities can be brought under control by enforcing margins, limiting hours of business, and restricting certain other matters, such as, price fluctuations for a given day, limiting the trading position of an individual, etc. This has been accomplished by most of the foreign leading markets and the authorities have taken steps to improve the character of trading. In view of this, we suggest that in India the authorities of a single statutorily recognised body should be asked to consider the advisability of adopting the following measures:

1. The limitation of the price fluctuations.

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2. The limitation on the trading of individuals to the extent of net long or short position of 50,000/60,000 bales from the last clearing. This should not apply to hedge sales and purchases.
3. The publication of such figures as to enlighten the public at large in matters of volume of transactions, deposits maintained by the parties with the clearing house and other useful as well as relevant information at least once a week.

APPENDIX A.

NOTE ON

'WAR AND FUTURES'

THE declaration of war in September, 1939 influenced every sphere of our economic activity, some being directly affected and some indirectly. Those commodities which are used as sinews of war, are subject to direct influence. Prices of raw materials particularly of those in which futures trading is actively carried on took an upward trend after the outbreak of hostilities. Cotton and jute are the cases in point. For instance, the price of cotton futures rose from an ordinary pre-war level of Rs. 160 to Rs. 341. In course of time, however, the price again dropped to Rs. 147-8. In view of this, it is of interest to discuss the prices of cotton on futures markets during the first two years of the war.

1. COTTON PRICES.

The cotton year 1938-39 opened with Broach at about Rs. 160/- and it practically closed on 25th August 1939 at the same level. The fluctuations in prices though varied were of a limited character. The sudden outbreak of war in Europe changed the entire outlook. The crisis was the least expected and it was believed that like the Munich Pact, some pact would be formulated and even at the eleventh hour war would be averted. The Bombay market was, therefore, staggered at the first impact of war and a frenzied speculative activity was in evidence. For instance, the Broach April/May futures contract which stood at Rs. 158-8 on September 1, 1939 shot up to Rs. 224-8 on September 15.

If we compare the range of fluctuations during the months of August and September (the month immediately preceding the declaration of war and the month immediately following the outbreak of conflict) we find that price variations were most normal during August ranging from Rs. 152 to 160 while the same became equally abnor-

Table* showing immediate effects of war on the price of cotton futures.**Broach April/May quotations in Rs.**

Year	Opening	Noon	After-noon	Closing	Night opening	Night closing
1939	(11-30)	(12-30)	(3-00)	(4-30)	(7-30)	(8-30)
7th Aug.	153-4	154-4	154-8	155-0	155-0	155-0
14th Aug.	156-2	156-12	156-12	155-0	155-0	154-12
21st Aug.	151-12	151-4	152-0	152-2	—	—
28th Aug.	160-4	159-12	160-8	160-0	159-8	159-12
2nd Sept.	162-0	164-0	167-0	165-8	165-4	166-10
4th Sept.	174-0	177-12	188-0	186-8	185-0	182-8
9th Sept.	187-8	185-8	186-0	187-0	186-8	183-0
16th Sept.	206-0	208-8	211-0	211-8	211-8	222-0
23rd Sept.	208-0	206-8	207-8	205-8	204-8	202-8
30th Sept.	198-0	194-12	194-0	192-12	192-8	192-8

*These quotations were personally collected while attending the Futures Ring, E.I.C.A., with Messrs. Devkaran Nanjee, Bombay.

mal during September ranging from Rs. 162 to 222. Even if we take the range of fluctuations for a given day, say, 14th August and 16th September, it is evident that on the 14th August prices varied from Rs. 156-12 to Rs. 154-12, i.e. a variation of Rs. 2 per day, whereas on 16th September the movements were violent varying from Rs. 206 to 222, i.e. a variation of Rs. 16 per day. A further observation that may be made from the above table is that prices were ruling at Rs. 160 or so till the end of August, while after a fortnight they jumped up to Rs. 222 registering thereby a rise of Rs. 62 or 39%. This contrasts favourably with the variation of Rs. 26-12 throughout the year 1938-39. The explanation for this phenomenal rise in prices is not far to seek. The war in Europe was chiefly responsible for it. The moment the conflagration was ablaze, there was a temporary collapse in the dollar value of the English and Indian currencies. The £ receded from 4.32 dollars on August 31 to 3.83½ dollars on September 18, 1939. This gave a fillip to the bull activity in the cotton market and prices began to rally fast along with other commodities. Among other factors the following were mainly responsible for this steep rise:

- (a) The smaller carry-over from the 1938-39 season,
- (b) The smaller crop for 1939-40 than the previous season,
- (c) The technical situation of the market, e.g. there was heavy short position in the market either against spot cotton or badla business; and
- (d) Teji-mandi transactions.

As a result of the combination of all these factors as well as the impetus given by the war the market moved up from height to height establishing new levels at every interval. Moreover, at every new level the badla and teji-mandi transactions had to be reversed which in turn sent prices still higher.

Cotton Prices in 1939-41: When the last war broke out prices began to decline and it was not until the war was well along in its second year that prices returned to normal. The experience of the last war of 1914 created an impression that prices would collapse in the beginning owing to war scares and uncertainties. This impression was fostered and translated into action. But this time, when the war broke out the position was quite the reverse.¹ Heavy commitments by way of monthly and annual teji-

¹Average monthly price of Broach futures per candy of 784 lbs. during 1914-15 and 1939-40.

Months	1914-15*	1939-40**
	Rs.	Rs.
June	289-8	158-10
July	281-0	152-6
August	227-8	146-14
September	212-0	195-6
October	185-8	195-14
November	180-8	229-10
December	175-0	305-2
January	187-0	299-14
February	199-8	265-14
March	224-8	258-4
April	267-0	242-6
May	246-0	229-0
June	240-8	175-6
July	238-8	166-4
August	248-0	178-4

*Based on data supplied by Messrs. Devkaran Nanjee.

**Based on data supplied by Messrs. C. B. Mehta & Co.

mandi contracts found the market exceptionally short. Hence, the market was rendered uncontrollable and prices began to rise by leaps and bounds. In addition, Bombay was feverishly excited on the steep rise in the Liverpool market and the fall in sterling. This put our market out of all relations with others.¹

A reaction as a necessary corrective came in October, 1939 when prices declined by about Rs. 40/-, Broach April/May dropping from Rs. 224-8 to Rs. 184-8 on October 5. This drop in prices was due mainly to peace rumours from Europe. These rumours did not take any shape and with the advancement of war the prices began once again to rise, touching Rs. 206 on October, 14. On speculative buying by Bombay and Calcutta dealers, the prices rose to Rs. 289-8 on November 30 and to Rs. 305 on December 2. Bombay saw this new high level of Rs. 300 after a lapse of some years. But the market being unsteady this level was not maintained for a long time. Following the weakness in the jute and other markets Broach dropped to Rs. 267 on December 7. The downward trend was, however, arrested by better advices from Liverpool and New York which sent up prices to Rs. 338-8 on December, 18. The season's peak price of Rs. 341 was reached in the Bombay market on January 5, 1940. At this stage after a short pause, prices terminated with a downward move. A bearish tendency developed because of (a) arrivals from upcountry, (b) accumulation of stocks and (c) the Excess Profits Tax Bill. It created a slump in the market and the price of Broach declined to Rs. 248-8 on January, 30. The threat of labour trouble in the Textile Industry on the question of dearness allowance also caused some anxiety. A further setback in price was registered in March. But it was not until the month of May that the feeling of nervousness was brought about in the trade. The market was shocked by

1.	Bombay	Broach	Liverpool/Americans	Wed. night New York closing re- ceived in Bombay
	expected to open	expected to open		on Thurs. morning
	Rs. per candy	d per lb.		cents per lb.
Sept.		April/May	May	May
7		190-8	5.73	8.57
21		210-0	5.71	8.42

the news of the invasion of Holland, Belgium and Luxembourg and the possibility of some more markets being lost to Indian cotton. Besides, the closing of the Mediterranean to cargo ships increased the difficulties of export trade with the U.K. and the Continent of Europe. The depreciation of the Shanghai Dollar, scarcity of freight space and the difficulty of obtaining exchange permits from Japan further aggravated the situation. The total effect of this was the heavy accumulation of stocks in Bombay and Karachi which pulled down the price of Broach from Rs. 263-12 on May 1 to Rs. 181 on May 22 and to Rs. 168 on June 6. The news that negotiations in respect of the Indo-Japanese Trade Agreement were indefinitely postponed also proved depressing to cotton prices. This accompanied by the lack of war risk insurance facilities heightened the burden of hedges. Italy's entry into the war on the side of Germany, the breakdown of French resistance and the aggressive activities of Japan in the Far East contributed to bring about such a demoralisation in the Bombay market that the Broach quotation came down to Rs. 147-8 on July 2, 1940. This was the lowest point touched during the 1939-40 season. As a result the entire war gain in prices was wiped out.

From this point prices took an upward turn. Demand in the spot market developed which helped to keep prices firm. Later on, the Government of India announced a compulsory scheme of war risk insurance. This coupled with better spot demand produced a bullish effect on the market and the prices on 31st August, 1940 touched Rs. 190-8. On Sept. 2, 1940 Broach April/May 1941 contract was quoted at Rs. 192. During the four months Sept. to Dec. 1940 the range of price fluctuations was comparatively normal varying from Rs. 213-12 to Rs. 181-8. As the crop began to move the pressure of hedge sales was witnessed in the market and the price of Broach April/May fell to Rs. 175-8 on Jan. 22, 1941. This was the lowest price of the 1940-41 season. During Feb. and March the tone became firm. Indian mills were the chief supporters in view of the fairly large war orders that they were receiving. Japanese houses also availed of this level. Moreover, the outlook was brightened in sympathy with the prices of American cotton which were improving because of the record

domestic consumption and the passage of the lease-and-lend legislation in the U.S.A. In view of all these factors, prices jumped up to Rs. 200 on March 14 and touched Rs. 249 on March 24. It was at this time that a squeeze was hinted at and a heavy rush of all-round buying was noted. In consequence, the price of Broach April/May, after a slight recession soared high and stood at Rs. 323 on May 15, 1941. An interesting feature of the season 1940-41 was the fact that the July/August 1941 contract which was quoted at a premium of Rs. 5-8 over the April/May 1941 contract in the beginning was now being quoted at a discount of Rs. 73-12. To meet this extraordinary situation, various measures were adopted by the E.I.C.A. which we shall review in their proper place. It will suffice to note here that the Broach April/May contract price had to be finally settled on the basis of Rs. 297 'as fixed by the Board of Directors on the due date (May 24.)'

In July 1941, prices came down owing to the following factors:—(i) Import control imposed by the Government of India; (ii) a circular issued by the Reserve Bank of India withdrawing the availability of U.S. Dollars for the payment of differences owed on futures business in the New York market, and (iii) an order freezing Japanese and Japan-controlled Chinese assets in India. As a result, the selling pressure developed in the market and the July/August 1941 contract was finally settled on Aug. 25, 1941 on the basis of Rs. 230 'as fixed by the Board'. It may thus be observed that prices during the war are governed more by political and other factors than by pure economic considerations or the demand-and-supply situation in a given market at a given time.

Parity Difference between Indian and American Prices: If we compare the range of fluctuations in the price of Broach in Bombay with the range of fluctuations in that of Middling in New York, we find that Broach lost all its normal price relationship with Middling during the first year of war. The parity difference between the prices of Broach and Middling, varied from a discount of 1.49 cent points for Broach or minus 17.4% in the beginning of September, 1939 to a premium of 1.47 cent points or plus 14.1% over Middling in the middle of December, 1939. At this stage, along with the changes in the respective prices

the parity difference took a reverse turn and it got widened to the maximum discount of 4.57 cent points for Broach or 44.1% in the first week of July, 1940. It will be noticed that Broach cotton which was dear by 1.47 cent points or 14.1% in the middle of December, 1939 became cheap by 4.57 cent points or 44.1% in the beginning of July, 1940. This tendency continued during the second year of war. A gap in the pricespread between the U.S.A. and Broach cotton widened and became violent by the end of the season 1940-41. For instance, the price parity between the two cottons widened from 103 cent-points per lb. on Sept. 5, 1940 to 651 cent-points on Aug. 28, 1941. In consequence, our imports of the American cotton during 1940-41 were reduced by 97% as compared with the imports of the previous season. Among other factors responsible for this drastic decline in imports were, of course, the transportation and exchange shortages.

2. CLEARING.

Period of Settlement Shortened to a Week: A sense of general fear prevailed in the trade throughout the cotton year 1939-40 that the fortnightly settlement clearings would not go through smoothly during this critical period of rapid and wide fluctuations. To give only one example, the fortnightly settlement clearing of January, 29, 1940 involved an amount of Rs. 1,97,40,157. This, of course, was cleared without any disturbance, establishing thereby an all time record since 1918.¹ But it strained the mind of traders to a great extent. Hence, members of the E.I.C.A. requested the Board to shorten the length of time of the settlement. The Board in their turn resolved with a view to afford better security to the trade to introduce a system of weekly settlement since September 1, 1940 in place of the existing system of fortnightly settlement. The clearing of differences at intervals of every week was a pressing need in the interests of the trade.² The ideal to be aimed at, however, is the system of 'daily settlement'.

¹It is interesting to note here in passing that an all time record of Delivery Orders issued on any one day was reached on May 7, 1941 when 1255 Delivery Orders were issued against the Broach, Oomra and Bengal hedge contracts as against 921 Delivery Orders issued on Sept. 1, 1922.

²For details refer to Chapter on 'Clearing' in the Text.

Under the present conditions when wild fluctuations have become the order of the day, one cannot expect to trade in 'futures' and accumulate differences over a longer period of time than 24 hours.

3. WAR MEASURES.

In view of the grave situation created by the war which threatened the stability of the Bombay market, several measures were adopted by the authorities.

(i) **Ban on Teji-mandi transactions:** Among the various measures adopted by the E.I.C.A. the most important was the prohibition of all teji-mandi transactions except the annual options maturing on 24th March, 1940.¹ This met with the approval of members as in the then existing circumstances when prices began to soar high everybody thought that teji-mandi transactions of shorter duration would cause wider fluctuations and tend to upset the balance of trading or at least. disturb the confidence. On 22nd September the Governor of Bombay issued an Ordinance prohibiting all option dealings in cotton throughout the Presidency.² Under this Ordinance, options in cotton entered into after that date were declared void. Government explained that the main factor responsible for the violent fluctuations was the option business. The Ordinance bewildered the trade in Bombay as the operators were not prepared for the news in regard to the abolition of the annual options. Government had also in view the introduction of a Bill on more or less the same lines except that options were to be made a penal offence under the new Act. The E.I.C.A. made a strong representation to the Government of Bombay to exempt the annual teji-mandi transactions from the operation of the proposed Act. As the Ordinance was due to expire on the 3rd November, the Bill was published on the 24th October, 1939 embodying the same clauses with regard to options. But the Congress Ministry resigned on 1st November and the Bill was not put through the legislature. After its usual life of six weeks, the Ordinance lapsed on November 3, and the option business was renewed in Bombay.

¹Notice issued by the Board of the E.I.C.A. on 15th September 1939.

²Ordinance II of 1939.

Prices of raw and manufactured jute in India were soaring high and dealers in jute had an opportunity to make money. These war-profits had to be profitably employed somewhere and cotton carried its own investment appeal. A heavy volume of teji-mandi option was entered into particularly by speculators from Calcutta side. An unending spiral of higher and still higher prices was the result. Hence, the Ordinance was enacted and all option dealings including annual teji-mandi transactions in cotton were declared void under an Act made by the Governor of Bombay on the 11th December 1939.¹ The provisions of the Act also applied to the partially excluded areas in the Province of Bombay. The Act aroused some indignation from the trade.² While the desirability of checking an unhealthy speculation in cotton is recognised by all, opinion on the question of abolishing the practice of option dealings is divided. Some are strongly opposed to its abolition, particularly the annual teji-mandi business. With a view to avoid repetition of what has been said by us in the text,³ we may conclude that the correct remedy to prevent violent fluctuations in cotton prices is

¹Act No. XXV of 1939: an Act to provide for the Prohibition of options in cotton and for certain other purpose in the Province of Bombay. It was explained in the Official communique that "the effect of options is to exaggerate price movements. It happens that, at present, as a result of option business, the upward movement of prices has been exaggerated and prices have risen above parity. But it is possible that during the next few months there may be a reaction and prices may tend to go below parity; and in that event options will exaggerate the downward movement with the same violence with which they have forced up prices at present. That will be definitely against the interest of the cultivator. For these reasons, His Excellency considers that it will be in the interests both of the cultivator and of the trade to stop options."

²"As for the apprehensions that options would exaggerate the downward movement with the same violence, the cotton grower and the trade might inquire why a similar ban on options had not been imposed during the long period of depression. The impression therefore, is that the Act aimed at preventing cotton prices from rising. If it be so, it is deplorable and the Board of the E.I.C.A. feel that they must lodge their emphatic protest against this action." Sir Purshottamdas Thakurdas. Times of India, 14th December, 1939.

³Refer to Chapter on Teji-Mandi or option business.

to regulate teji-mandi transactions, especially annual options.

(ii) **Other measures:** The other measures taken by the E.I.C.A. during the first year of the war were (a) timely warning by the President against over-trading, (b) restrictions on forward sales of July/August and July contracts by a member without a sufficient cover, (c) calling in of statements of outstanding business and (d) the hours of trading on working days except half holidays were fixed from 12 noon to 5-30 p.m. with effect from May 15, 1940.¹

Quite a different set of measures had to be adopted by the authorities to meet the extraordinary situation that was developing from time to time during the second year of the war. In the middle of the season 1940-41, it was apprehended that a corner in the Broach April/May contract was being engineered by some of the traders and at least a squeeze was within the vicinity of a shrewd dealer. The Board of the E.I.C.A. realised the gravity of the situation. Consequently, with a view to bring about the ease in the market, they adopted the following measures:—(a) A notice was issued drawing the attention of the trade to the clause giving powers to the Board to deal with 'corners' or 'bear raids' in any and every kind of cotton, (b) trading in new crops was opened earlier than May, (c) the fixing of the daily rates was undertaken by the Board, (d) the trade was given a warning not to accentuate the July/August position any further, and (e) the prices of Broach April/May and July/August 1941 contracts were fixed by the Board on the due dates at Rs. 297 and Rs. 230 respectively.

All these measures, it should be noted, have been successful in realising the desired effects to a certain extent which helped the market to settle down under the prevailing conditions to what may be regarded as 'normal'.

(iii) **Suggestions from the Cotton World:** As mentioned above, the order freezing the Japanese assets in India and later on the declaration of war by Japan on the

¹Under the Defence of India Rules, the Government of India appointed a special Price Advisory Officer for cotton in Bombay in March, 1940.

Allies have aggravated our export situation still further by reducing the figure to almost nil. As a result, there is a surplus of about 20 lakhs of bales mostly of short staple cotton. In view of this, the I.C.C.C. and the E.I.C.A. have suggested some measures to meet the present circumstances. The most important suggestions are: (1) that the acreage under cotton should be reduced by 50%, (2) that food-stuffs should be substituted for cotton, (3) that the long-staple varieties should be replaced wherever the short-staple cotton is growing, (4) that the Government of India should come to the rescue of the cotton grower by purchasing the short-staple cotton, and (5) that a new hedge contract should be framed,¹ to remain in force during the war, for the purpose of trading on the E.I.C.A. so that the solution to the problem of the disposal of the short-staple cotton may be facilitated by the trade in general. These suggestions are receiving due consideration at the hands of the cotton interests and the Government of India.

4. CONCLUSION.

From the above brief review of the 'Cotton futures during the first two years of the War' the principal points that may be observed are: (i) that the immediate effect of war of 1939 was a sudden rise in prices, (ii) that this time the prices went up with the outbreak of hostilities and a climax was reached in January 1940, while during the war of 1914 prices in the beginning and for sometime during the year went down, (iii) that options should be recognised and brought under regulations of the E.I.C.A., and (iv) that taking both the years together it may be said that it was undoubtedly a trying time for the Cotton Trade. In spite of this the fact which needs no conviction remains that the futures market in India² has stood up to its many embarrassments in a most befitting and noteworthy manner.

¹Report of the Special Sub-Committee of the Hedge Contracts Sub-Committee: 23rd March 1942.

²In England, the Liverpool Cotton Association has been closed for private trading and British cotton firms are now acting as agents to the U.K. Government. Similarly, Egypt had also to close the Cotton Exchange at Alexandria.

APPENDIX B

QUESTIONNAIRE.

Hedge Contracts—one or several.

(A) 1. Does Hedge Contracts System safeguard the position of the User?

(B) 2. Is it true to say that Hedge Contract is nothing but a 'paper contract'?

3. Do you think that if there is only ONE hedge contract, it would greatly reduce speculation?

4. Is the existing machinery of hedge contract satisfactory to all the Interests?

(C) 5. What would make a hedge contract system an IDEAL one for a country like India?

6. When do you make use of the hedge contracts?

7. Under what circumstances do you employ different contracts for hedging purposes?

8. Kindly distinguish hedging FROM speculation.

(D) 9. What led to the system of futures contract?

10. What group—(a) Buyers (b) Sellers (c) Traders played the most important part in its evolution?

11. Do you agree to the statement "Futures contract is a sellers' contract and therefore one-sided"?

12. Should the futures contract be used as an aid to, or, as a means of, 'distribution of cotton'?

13. Please state, why are only a small percentage of futures contracts entered into, ever liquidated by the actual delivery of cotton?

(E) 14. Does a system of call serve any specific purpose of all the parties concerned?

15. Will you kindly point out its advantages and drawbacks?

16. Please state when do you make use of the system.

17. Kindly suggest, if you can, any better device.

(F) 18. Do the cultivators avail themselves of the facilities offered by hedging?

19. What is your average turn over in, (a) Hedge contracts (b) Forward transaction?

II. Prices.

(A) 20. Kindly state the main factors affecting Price.
 21. Are there any other subsidiary factors affecting price? If so, please state the same.
 22. Is there any connection between the Spot and Futures prices?
 23. Are the futures prices governed by speculation, sentiment or actual supply and demand?
 24. Are the forward transactions responsible in keeping the Prices 'up' or 'down'?
 25. Can speculation put up a price contrary to the dictates of Supply and Demand?
 26. Do the World markets influence the price of Indian cotton.
 27. What is the influence of Exchange Ratio on the price of our cotton?
 28. How far do the political situation as well as the international situation affect the price?

(B) 29. Kindly state how Parity is worked out?
 30. Does it affect the buying and selling operations in different markets?

(C) 31. Please explain the straddle business.
 32. What is its influence on the price of cotton?
 33. Is there any relation between 'Straddle' and 'Parity'?

III. Teji-Mandi Operations.

(A) 34. What are the Teji-Mandi operations?
 35. Please explain the procedure followed.
 36. Do they serve any trade purpose?
 37. Are they, in any way, harmful to the user?
 38. Should they be eradicated or maintained?

(B) 39. What is the influence of Teji-Mandi transactions on the determination of price?
 40. Are they of any advantage to the agriculturists?
 41. What is their utility to the mills?

(C) 42. What are the moral, social and economic effects of these operations on the community?
 43. Kindly say, why they are not recognised by the East India Cotton Association, Ltd.
 44. What is the legal position of the buyer and seller under the Teji-Mandi transaction?

IV. Spot and Futures Markets.

45. Is there any difference in performing the spot and futures contracts?

V. The Cotton Exchange.

(A) 46. Are you a member of the Exchange?
 47. Should the Exchange be a Public or a Private BODY?
 48. Do you favour the Panel Electorate?
 49. Is the existing Constitution of the East India Cotton Association, Ltd. conducive to the economic betterment of the Trade in general?

(B) 50. What should the Government do to bring about a fair and evenly distributed CONTROL over the cotton Trade?

(C) 51. Is it desirable that in a single controlling authority and in no other BODY should the powers be vested to control all the dealings in cotton?

(D) 52. What is the Unitary Control?
 53. What is the Monopolistic Control?
 54. Kindly say, out of these two, which do you prefer?

(E) 55. Are you in favour of "free trade"?
 56. Should the Sister-associations be amalgamated?
 57. Should they be recognised and identified?

VI. Clearing House.

(A) 58. Do you make use of the Clearing House?
 59. Please explain the working of it.
 60. Is it the ideal system of clearings?

(B) 61. What is the utility of it to the Trade?
 62. What economic role does it play for all its subscribers?
 63. Can you devise a better machinery than the existing one?

VII. Survey and Arbitration.

(A) 64. Is the system of survey satisfactory?
 (B) 65. When do you go in for the Arbitration?
 66. Kindly state the procedure followed.
 67. Is the machinery satisfactory?

(C) 68. Please explain the circumstances under which its award must be given and regarded as final.

VIII. Trading Hours.

(A) 69. Do you favour the maintenance of NIGHT sessions?

(B) 70. Should the business hours in cotton trade be limited from 11 a.m. to 4 p.m.?

IX. Speculation.

(A) 71. Should speculation be supported or eradicated?

72. Do you favour any sort of control on speculative transactions?

73. Is speculation conducive to genuine buyers and sellers?

74. Is speculation necessary?

75. Kindly state the advantages and drawbacks of speculation.

(B) 76. Does speculation, in any way, affect the interests of agriculturists?

77. Do the agriculturists speculate?

78. Please explain the position of a farmer with regard to speculation?

(C) 79. What is the object of a speculator?

80. Is he out to serve the Community?

81. Kindly state the services performed by the speculator.

(D) 82. What is meant by short-selling and long-buying?

83. Should they be allowed or dispensed with?

84. Are they economically healthy?

85. Would you kindly explain their commercial importance.

X. Futures Market.

(A) 86. Do you make use of futures market?

87. Does it serve your purpose?

88. Please say whether it is necessary for the agricultural commodity like cotton to have a 'futures' market.

89. Kindly give your opinion on the Organised Commodity Market.

(B) 90. Are there any 'undesirable' activities on the 'futures market'?

91. Do you think they are indispensable?

92. Please state the way in which this 'element' can be successfully controlled.

(C) 93. Please explain, what will be the effects of a lack of 'futures' market on (a) Agriculture, (b) Commerce, (c) Industry, (d) Trade.

94. Can you trace the 'Genesis' of Futures Markets all over the world in general and in India, in particular?

(D) 95. What are the functions of the Futures Market?

96. What is the importance and usage of the Futures Market to the Cotton Trade?

97. Can we not do away with the Futures Market?

(E) 98. Does jobbing help the smooth functioning of the Market?

99. Should the jobbing be maintained or not?

100. Kindly give your opinion on the question whether a division of functions between a Broker and a Jobber would be beneficial to the trade in general?

(F) 101. Kindly say whether the Futures Market helps in financing the Cotton Trade.

Out of 750 copies sent to all those persons or institutions, who are connected with and interested in 'cotton' all over the world, 200 replies were received.

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